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Limnological Results from the 1980 Lake Enrichment Program

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LIMNOLOGICAL RESULTS FROM THE 1980 LAKE ENRICHMENT PROGRAM

by

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ABSTRACT

Costella, A.C., B. Nidle, R. Bocking, and K.S. Shortreed. 1982. Limnological results from the 1980 Lake Enrichment Program. Can. MS Rep. Fish. Aquat. Sci. 1635: iv + 291 p.

Results of the 1980 Limnology subprogram of the Lake Enrichment Program (LEP) are presented. Twenty-seven stations in 18 lakes were sampled from near-isothermal conditions in spring until fall overturn. Data are presented for each station and date, and summarized in the Appendix Tables. Time-weighted means for the growing season are included.

Key words: Lake Enrichment Program (LEP), fertilization, dystrophic, oligotrophic, nutrients, bacteria, phytoplankton, zooplankton.

RESUME

Costella, A. C., B. Nidle, R. Bocking, and K. S. Shortreed. 1982. Limnological results from the 1980 Lake Enrichment Program. Can. MS Rep. Fish. Aquat. Sci. 1635: iv + 291 p.

Les résultats de 1980 de sous-programme de limnologie du Programme d'enrichissement des lacs (PEL) sont présentés. Vingt-sept endroits dans les 18 lacs furent échantillonnés à partir du printemps, quand les conditions étaient presque isothermiques, jusqu'à l'inversion d'automne. Les données sont présentées pour chaque date, et résumées dans les tableaux de l'appendice. Les moyennes pondérées en fonction du temps pour la saison de croissance sont incluses.

Mots-clés: Programme d'enrichissement des lacs (PEL), fertilisation, dystrophe, oligotrophe, nutriments, bactéries, phytoplancton, zooplancton.

INTRODUCTION

The Lake Enrichment Program (LEP) of the Federal-Provincial Salmonid Enhancement Program (SEP) commenced in 1977 with the fertilization and study of six lakes and has since expanded with the fertilization of 14 lakes in 1980. In addition, two lakes were studied to obtain pre-fertilization data and Babine Lake was sampled as part of a committment to the Babine Watershed Change Steering Committee. Earlier work on many of these lakes and the rationale and objectives of these continuing studies have been previously reported by Stockner (1979), Stockner and Shortreed (1979), Stockner et al. (1980), Shortreed and Stockner (1981) and MacIsaac et al. (1981).

Data in this report are the results of the Limnology subprogram of the 1980 LEP. Field sampling and data collation were conducted under contract by J.E. Sager and Associates, Burnaby, B.C.

DESCRIPTION OF STUDY LAKES

The 18 lakes sampled during 1980 represented a wide variety of morphometric and hydrologic features (Table 1A, Fig. 1-18). The Queen Charlotte Island lakes and the majority of coastal lakes are warm monomictic; Babine, Kitlope, Mohun and Morice lakes are dimictic with varying periods of ice cover; and Henderson Lake is ectogenically meromictic (Wetzel 1975). Water transparencies ranged from glacially turbid to clear to slightly or moderately dystrophic (humic stained). The lakes have relatively small littoral zones, low inorganic nutrient levels, low phytoplankton biomass (Shortreed and Stockner 1981), low bacterioplankton biomass (MacIsaac et al. 1981) and low zooplankton biomass (Rankin et al. 1979, Rankin and Ashton 1980).

METHODS

The lakes in this study were fertilized weekly with dissolved ammonium nitrate and ammonium phosphate throughout the growing season, except Mercer, Mohun and Long lakes which had been fertilized in previous years and Babine Lake which has never been fertilized. The fertilizer was applied using a DC-6B water bomber in 2-3 passes over the pelagic zone, however in Kitlope Lake the littoral zone was fertilized since the epilimnetic flushing rate is so rapid. Natural and fertilizer loads are summarized in Table 1B.

The main basins of each lake were sampled from near-isothermal conditions in spring until the onset of fall overturn. The lakes were sampled monthly with the exception of the Queen Charlotte Island lakes (Awun, Eden, lan and Mercer) which were sampled three times during the season and Babine Lake which was sampled twice only. A float-equipped de Havilland Beaver aircraft was used to sample all lakes except Mohun Lake which was sampled by boat. The physical, chemical and biological measurements collected at each station are summarized in Tables 1C and 1D.

Temperature profiles to a maximum depth of 50 m were obtained at each station using a Montedoro-Whitney temperature probe (Model TC-5C) or a bathythermograph calibrated with a surface thermometer and water stability indices were calculated (Turner 1973). Annual temperature isopleths are presented in Fig. 19-24. A Li-Cor light meter (Model 185A) was used to measure photosynthetically active radiation (PAR: 400-700 nm) from the surface to the compensation depth (1% of surface intensity) and vertical light extinction coefficients were calculated. A standard 22-cm white Secchi disc was used to measure water transparency.

Zooplankton were sampled at every station. A 100-μm mesh size SCOR-UNESCO net (mouth area = 0.25 m^2) was hauled vertically from 25 m for the northern lakes and 50 m for the southern lakes at approximately 0.5 $m \cdot s^{-1}$. Zooplankton hauls at Mohun Lake were from 35 m. Samples were preserved in a borax-buffered, 4% formalin-sucrose solution (Haney and Hall 1973). In the laboratory each sample was split in half using a Folsom plankton splitter. One portion was filtered onto a pre-weighed Whatman glass fiber filter, dried at 90°C for 24 h and weighed again. Biomass was expressed as mg dry weight·m^{-3}. No corrections were made for possible algal contamination of the samples. The other portion of the sample was used for enumeration and identification. Only zooplankton biomass data are presented in this report.

A 4.5-L Van Dorn bottle rinsed with 95% ethanol was used to collect all water samples. Samples were usually collected between 0900 and 1200 h. An unfiltered portion of the sample was placed into a clean, rinsed test tube, stored in the dark at 4°C, and analyzed later for total phosphorus. Samples for the remaining nutrients and chlorophyll were stored for 2-4 h in 1-L or 2-L polyethylene bottles and kept dark and cold. At the field laboratory 55-mm Whatman GFF filters, which had been previously ashed and washed with 500 mL distilled water, were used to filter the nutrient samples. The filter was placed in a 47-mm Swinnex (Millipore Corp.) filtering unit. An additional 500 mL distilled water were passed through the filter followed by 50-mL aliquots from 20, 5, 3 and 1 m. One filter was generally used to process the samples from each station unless high algal biomass inhibited filtering efficiency. A glass bottle was rinsed then filled with 100 mL filtered water, covered with aluminum foil and capped tightly. This sample was analyzed later for nitrate and dissolved organic nitrogen. Approximately 150 mL of sample was filtered into a rinsed, plastic bottle and analyzed later for soluble reactive silicon, ammonia and total dissolved solids. A 25-mL test tube was rinsed and filled with filtered sample for total dissolved phosphorus analysis and 5 mL of filtered sample for dissolved organic carbon (DOC) were placed into an ashed glass ampoule, 10 μL mercuric chloride solution (65 $g \cdot L^{-1}$) were added then the ampoule capped with ashed aluminum foil. All samples except those for DOC analyses were stored cold in the dark and all chemical analyses were done according to the methods of Golterman (1969).

A 1-L sample was filtered through an ashed 55-mm diameter Whatman GFF filter. Filters were folded in half and frozen and analyzed later for particulate carbon and particulate nitrogen using a Perkin Elmer CHN Analyzer (Model 240). A 500-mL sample was filtered through a 47-mm diameter, 0.8 µm Millipore filter and a few drops of saturated $MgCO_3$ were added. At Great Central Lake, Station 2, an additional 500-mL sample was filtered through a 54 µm Nitex screen. All filters and screens were folded in half, stored frozen and analyzed later for total chlorophyll using a Turner fluorometer (Model 111) using the method of Strickland and Parsons (1972).

At each station glass jars were filled completely with water (generally from 2 m and 7.5 m), covered with parafilm and transported to the field laboratory. These samples were used to measure pH and total alkalinity according to the standard potentiometric method of APHA (1975). Dissolved inorganic carbon (DIC) was estimated indirectly from pH, temperature, total dissolved solids and bicarbonate alkalinity (APHA 1975). During the latter part of the season, additional DIC analyses were conducted (Stainton et al. 1977). Samples were collected from eight depths in 50-cc plastic syringes and 0.5 mL of 0.5 N H_2SO_4 was added in the field then transported to the field laboratory. Samples and standards for DIC were analyzed using a Carle Gas Chromatograph (Model 211 M). Standards were prepared daily from a stock solution (1000 mg $C \cdot L^{-1}$) and deionized water. Duplicates of each standard were made (5, 2, 0.5 mg $C \cdot L^{-1}$ and a blank) and 0.5 mL of 0.5 N H_2SO_4 was added. To each standard and sample 30 mL of Helium gas were added then all agitated for approximately 15 s. Syringes were then placed into an ice bath for a minimum of 10 m prior to injection into the gas chromatograph.

A test tube rinsed with 95% ethanol was filled with sample and used for bacteria enumeration. In the field laboratory 5 mL were filtered onto a 25-mm diameter, 0.2 µm Nuclepore membrane filter counter-stained with Irgalan Black. Filters were removed when just dry and placed into a 9-cm divided petrie dish lined with Whatman filter paper, air dried at room temperature (approximately 20°C) and stored. Samples were counted later under epifluorescence using the acridine orange direct count (AODC) method as described by MacIsaac et al. (1981). Results are expressed as $numbers \cdot mL^{-1}$.

Phytoplankton samples from 1, 5 and 20 m were collected in polyethylene bottles and fixed with a few drops of Lugols' acetate solution. Samples from 1 and 5 m were shaken and allowed to settle overnight in 27-mL settling chambers. One transect at 175 X and one at 700 X magnification were counted using a Wild M40 inverted microscope equipped with phase microscopy (Utermöhl 1958). Counts were converted to numbers ($cells \cdot m^{-3}$) and volume ($mm3 \cdot m^{-3}$).

Samples for ultraphytoplankton ($<$ 3 µm equivalent spherical diameter) biomass were collected from selected lakes from 1, 3, 5 and 20 m in dark, 125-mL polyethylene bottles and transported to the field laboratory where 15 mL of each sample were filtered onto a pre-stained (Irgalan Black), 25-mm diameter, 0.2 µm Nuclepore membrane filter in the same manner as for bacteria biomass. Filters were then stored in darkened petrie dishes until counts were made using a Zeiss compound microscope (Model KLSM) equipped for epifluorescence as described for bacteria biomass. Thirty random fields were counted and values were converted to numbers (cells$\cdot$m^{-3}) and volume (mm$^3\cdot$m^{-3}). Approximately 100 cells were counted per sample which represents 20% accuracy with 95% confidence limits according to Lund et al. (1958).

For a comparison of counting methods, ultraphytoplankton were also enumerated using the Utermöhl (1958) technique. One transect at 1750 X magnification was counted for most phytoplankton samples from 1 and 5 m. Counts by the Utermöhl technique were included in total phytoplankton numbers and volumes for all stations except Kennedy Lake, Station 2 (March to November) and Kitlope, Lake, Station 1 (September and October). For these stations, ultraphytoplankton counted under epifluorescence were included in total phytoplankton numbers and volume. A comparison of ultraphytoplankton counts using the Utermöhl and epifluorescence techniques in presented in Appendix Tables 25 and 26.

Total primary production and heterotrophic activity were measured at all stations (except Awun, Eden, Great Central, Henderson, Hobiton, Ian and Mercer lakes) at eight depths in the water column (Table 1C). Two 125-mL light bottles were filled from each depth plus one dark bottle from 1, 3, 5 and 20 m and an additional light bottle from 1, 3, 5 and 20 m to be used as blanks for tritiated glucose uptake. Each bottle except the blanks was inoculated with 1 mL of sterile dual-labelled radioisotope stock containing approximately 67 kBq (1.8 µCi)$\cdot$mL^{-1} of ^{14}C-bicarbonate and approximately 15 kBq (0.4 µCi)$\cdot$mL^{-1} of ^{3}H-glucose. Activity of the radioisotope stock was determined by inoculating 1 mL of the stock solution into each of three scintillation vials containing 15 mL of scintillation cocktail (14:1 Aquasol-2: phenethylamine). Samples were incubated at their respective depths for 2 h, generally between 0900 and 1200 h. After incubation, samples were retrieved, placed in light tight boxes and transported to the field laboratory where filtration started within 2 h after incubation stopped. Sterifil (Millipore Corp.) filtering units were used as follows: a wetted Sartorius or Nuclepore glass fiber filter was placed on the filter holder base and support screen to absorb any unassimilated radioisotope. A pool of water was put on top of the glass fiber filter and a 47-mm diameter, 0.2 µm Nuclepore membrane filter was placed on top. The funnel was then screwed down tightly and vacuum applied. A 50-mL aliquot of each sample was filtered (except blanks) at a vacuum not exceeding 20 cm Hg. With vacuum still on, the filter was removed and placed in a scintillation vial containing 15 mL of the scintillation cocktail. At stations where fractionated primary production was measured, 50-mL aliquots from 1, 3 and 5 m light and dark bottles were filtered in the same way using a 47-mm diameter, 8.0 µm Nuclepore membrane filter. After all samples had been filtered, the radioisotope stock solution was filtered twice through a 47-mm diameter, 0.2 µm Nuclepore membrane filter. One mL of the stock was added to each blank bottle and a 50-mL aliquot was immediately filtered in the same manner as the other samples. All vials were stored cold in the dark and counted later in a Packard Tri-Carb 460 C Liquid Scintillation system. Quench series for both ^{14}C-bicarbonate and ^{3}H-glucose were composed of the same cocktail and filters as used for samples. Strickland's (1960) equation was used to calculate carbon uptake as mg C$\cdot$m$^{-3}\cdot$h^{-1}. Hourly volumetric production was converted to daily areal production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) using light data collected at the field laboratories with a Li-Cor printing integrator (Model 550) equipped with a Li-Cor quantum light sensor (Model 190S). Heterotrophic activity was measured by calculating the turnover time of the tritiated glucose as described by MacIsaac et al. (1981). Results were expressed in hours on the raw data tables and as geometric means of the epilimnetic values on the summary tables.

RESULTS

Results are presented in the form of raw data tables (Tables 1-181) for each lake, station and date; in summary form (Appendix Tables 1-35) and as time-weighted means during the growing season (Appendix Tables 36-46). The growing season started when the surface water temperature reached 8°C and ended when the surface water temperature fell to 12°C.

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Table 1A. Geographic, climatic and hydrologic data from the 1980 study lakes.

Lake	Latitude	Longitude	Elevation (m)	Lake area (km^2)	Mean depth (m)	Water residence time (y)
Awun[a]	53°36'	132°35'	51	4.9	47	0.9
Babine[c]	55°00'	123°00'	712	490.7	55	18.2
Bonilla[a]	53°31'	130°15'	10	2.3	34	1.0
Curtis[a]	53°30'	129°50'	10	3.0	34	0.6
Devon[a]	53°27'	129°45'	10	1.8	29	1.3
Eden[a]	53°51'	132°43'	70	5.9	43	0.9
Great Central[a]	49°22'	125°15'	82	51.0	212	7.3
Henderson[a]	49°05'	125°02'	15	15.0	109 (43)[e]	3.2 (1.3)[e]
Hobiton[a]	48°45'	124°49'	15	3.6	36	1.0
Ian[a]	53°45'	132°35'	116	20.0	50	1.1
Kennedy-Clayoquot[b]	49°08'	125°35'	12	17.0	51	1.7
Kennedy-Main[b]	49°04'	125°30'	12	47.0	27	0.9
Kitlope[a]	53°07'	127°13'	15	12.0	86	0.4
Long[a]	51°14'	127°10'	15	21.0	73	1.1
Lowe[a]	53°34'	129°33'	10	3.7	25	0.2
Mercer[a]	53°34'	132°53'	25	1.2	15	0.1
Mohun[a]	50°07'	125°30'	200	9.9	13	1.5
Morice[d]	54°00'	127°40'	797	96.1	100	3.8

[a] Data from Shortreed and Stockner (1981).
[b] Data from Stockner et al. (1980).
[c] Data from Stockner and Shortreed (1975).
[d] Data from Stockner and Shortreed (1979).
[e] Numbers in brackets are the result of calculating lake volume using only the mixolimnion.

Table 1B. Natural and fertilizer loads to the 1980 study lakes.

Lake	Lp[a] ($\mathrm{mg\ P\cdot m^{-2}\cdot wk^{-1}}$)	F[b] ($\mathrm{mg\ P\cdot m^{-2}\cdot wk^{-1}}$)	Total P load[c] ($\mathrm{mg\ P\cdot m^{-2}\cdot wk^{-1}}$)	Lc[d] ($\mathrm{mg\ P\cdot m^{-2}\cdot wk^{-1}}$)	% $\frac{F}{Lp}$	% $\frac{\text{Total P}}{Lc}$
Awun	5.79	3.90	9.69	14.49	67	67
Bonilla	2.12	13.50	15.62	7.82	637	200
Curtis	2.31	4.50	6.81	11.57	195	59
Devon	1.09	4.60	5.69	5.49	422	104
Eden	4.37	3.40	7.77	13.25	78	59
Great Central	0.77	2.74	3.51	7.03	356	50
Henderson	0.78	5.65	6.43	6.54	724	98
Hobiton	1.13	3.37	4.50	5.63	298	80
Ian	4.51	2.60	7.11	13.25	58	54
Kennedy-Clayoquot	1.17	5.08	6.25	5.85	434	107
Kennedy-Main	0.84	2.50	3.34	4.95	298	67
Kitlope	4.97(9.94)[e]	8.06	13.03(18.00)	33.15(66.30)	162(81)	39(27)
Lowe	3.54	6.77	10.31	20.80	191	50
Morice	0.74(1.47)	2.93	3.67(4.40)	7.33(14.66)	396(199)	50(30)

[a] Lp = natural P loading using spring overturn values of P in Vollenweider's (1976) equation.

[b] F = amount P added as fertilizer.

[c] Total P load = Lp + F

[d] Lc = critical load (Vollenweider 1976)

[e] numbers in brackets are the result of including glacial melt in the calculations of weekly P loadings which doubles the runoff, Lc and Lp per week during the fertilized period thereby reducing the effects of fertilization.

Table 1C. Physical, chemical and biological measurements collected at each station during the 1980 field season.

Lake and station	Measurements[a]	Depths sampled[b]	Number of sampling dates
Awun	A,D,F,I,M	1,3,5,20	3
Babine	A,C,F,I,J,K,M	0,1,2,3,5,7.5,10,20	2
Bonilla	A,C,E,F,I,K,M,O,P,Q	0,1,2,3,5,7.5,10,20	13
Curtis	A,C,E,F,I,K,M,O	0,1,2,3,5,7.5,10,20	7
Devon	A,C,E,F,I,K,M,O	0,1,2,3,5,7.5,10,20	6
Eden	A,D,F,I,M	1,3,5,20	3
Great Central-1	A,B,E,F,I,J,L	1,3,5,20	9
Great Central-2	A,B,E,F,G,H,I,J,L	1,3,5,20	9
Henderson-2	A,B,E,F,I,J,L	1,3,5,20	9
Hobiton	A,B,E,F,I,J,L	1,3,5,20	9
Ian-1	A,D,F,I,M	1,3,5,20	3
Ian-2	A,D,F,I,M	1,3,5,20	3
Kennedy-Clayoquot-2	A,C,E,F,I,K,L,O	0,1,3,5,7.5,10,20,30	9
Kennedy-Main-3	A,C,E,F,I,K,L,O	0,1,3,5,7.5,10,20,30	9
Kitlope	A,C,E,F,I,K,M,O,P,Q	0,1,2,3,5,7.5,10,20	11
Long-2	A,C,E,F,I,K,L,O,P,Q	0,1,2,3,5,7.5,10,20	9
Long-3	A,C,E,F,I,K,L,O	0,1,2,3,5,7.5,10,20	9
Lowe	A,C,E,F,I,K,M,O,P,Q	0,1,2,3,5,7.5,10,20	8
Mercer	A,D,F,I,M	1,3,5,20	3
Mikado	A,C,E,F,I,K,M,O	0,1,2,3,5,7.5,10,20	2
Mohun	A,C,E,F,I,J,N,O	0,1,3,5,7.5,10,20,30	9
Morice-1	A,C,E,F,I,K,M,O	0,1,2,3,5,7.5,10,20	6
Morice-2	A,C,E,F,I,K,M,O	0,1,2,3,5,7.5,10,20	6

[a] Legend for measurements collected are on Table 1D.

[b] Primary production was measured at 8 depths, nutrients at 1,3,5,and 20 m, and Total inorganic carbon generally at 1 and 7.5 m or 2 and 7.5 m.

Table 1D. Legend for measurements collected at the 1980 study lakes.

Symbol	Measurements collected
A	Physical measurements (Secchi depth, surface temperature, 0-50 m temperature profile, light profile to compensation depth)
B	Basic nutrient chemistry (Dissolved inorganic carbon, dissolved organic nitrogen, ammonia, nitrate, total phosphorus, total dissolved phosphorus, soluble reactive silicon) and pH.
C	Advanced nutrient chemistry (B above plus dissolved organic carbon, particulate carbon, particulate nitrogen, total dissolved solids).
D	Basic nutrient chemistry, pH and total dissolved solids.
E	Periphyton biomass (total chlorophyll and ash free dry weight) and species composition. (Results of periphyton data are not presented in this report).
F	Total chlorophyll analysis (> 0.8 µm).
G	Size fractionated chlorophyll analysis (0.8 µm - 54 µm).
H	Size fractionated chlorophyll analysis (>54 µm).
I	Phytoplankton identification and enumeration at 1, 5 and 20 m and ultraphytoplankton counts at 1 and 5 m.
J	Bacteria biomass at 4 depths (1, 3, 5 and 20 m).
K	Bacteria biomass at 8 depths.
L	Zooplankton biomass analysis (vertical haul 0-50 m.)
M	Zooplankton biomass analysis (vertical haul 0-25 m.)
N	Zooplankton biomass analysis (vertical haul 0-30 m.)
O	Total primary production and heterotrophic activity.
P	Size fractionated primary production (0.2 µm - 8.0 µm).
Q	Size fractionated primary production (>8.0 µm).

Table 1. Physical, chemical and biological data from Awun Lake, May 3, 1980.

Compensation depth (m) 5.0

Extinction coefficient (k_e) 0.85

Secchi depth (m) 4.5

Surface temperature (^{o}C) 5.6

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 7.3

Depth (m)	1	3	5	20
pH	6.4		6.4	
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)	2.39		3.03	
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	119	90	67	67
Ammonia (µg $N \cdot L^{-1}$)	7	7	7	8
Nitrate (µg $N \cdot L^{-1}$)	31	33	33	33
Total phosphorus (µg $P \cdot L^{-1}$)	2	1	1	1
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	2	<1	2	1
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	1740	1680	1820	1790
Total dissolved solids ($mg \cdot L^{-1}$)				
Total chlorophyll ($mg \cdot m^{-3}$)	0.63	0.38	0.22	0.14
Algal numbers ($\times 10^{8} \cdot m^{-3}$)	20		12	
Algal volume ($mm^{3} \cdot m^{-3}$)	25		40	

Table 2. Physical, chemical and biological data from Awun Lake, June 24, 1980.

Compensation depth (m) 6.1

Extinction coefficient (k_e) 0.71

Secchi depth (m) 5.0

Surface temperature ($^{\circ}$C) 16.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 59.3

Depth (m)	1	3	5	20
pH	6.3		6.2	
Dissolved inorganic carbon (mg C$\cdot$L^{-1})	2.69		2.24	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	50	79	49	58
Ammonia (µg N$\cdot$L^{-1})	6	20	5	7
Nitrate (µg N$\cdot$L^{-1})	2	2	3	33
Total phosphorus (µg P$\cdot$L^{-1})	2	2	2	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})				
Soluble reactive silicon (µg Si$\cdot$L^{-1})	2020	1880	2020	2060
Total dissolved solids (mg$\cdot$L^{-1})				
Total chlorophyll (mg$\cdot$m^{-3})	3.24	3.28	1.84	0.40
Algal numbers (x10^{8} $\cdot$ m^{-3})	69		54	
Algal volume (mm$^{3}\cdot$m^{-3})	192		175	

Table 3. Physical, chemical and biological data from Awun Lake, September 24, 1980.

Compensation depth (m) 4.8

Extinction coefficient (k_e) 0.92

Secchi depth (m) 3.5

Surface temperature (^{o}C) 14.5

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 25.4

Depth (m)	1	3	5	20
pH		6.8		6.5
Dissolved inorganic carbon ($mg\ C\cdot L^{-1}$)		1.61		2.01
Dissolved kjeldahl nitrogen ($\mu g\ N\cdot L^{-1}$)	43	50	82	37
Ammonia ($\mu g\ N\cdot L^{-1}$)	5	5	5	5
Nitrate ($\mu g\ N\cdot L^{-1}$)	15	17	15	44
Total phosphorus ($\mu g\ P\cdot L^{-1}$)	2	2	2	1
Total dissolved phosphorus ($\mu g\ P\cdot L^{-1}$)	3	2	2	1
Soluble reactive silicon ($\mu g\ Si\cdot L^{-1}$)	1790	1770	1780	1770
Total dissolved solids ($mg\cdot L^{-1}$)			40	
Total chlorophyll ($mg\cdot m^{-3}$)	2.68	2.30	2.22	0.48
Algal numbers ($\times 10^{8}\cdot m^{-3}$)	580		336	
Algal volume ($mm^{3}\cdot m^{-3}$)	258		159	

Table 4. Physical, chemical and biological data from Babine Lake, Station 1, June 4, 1980.

Compensation depth (m) 5.6

Extinction coefficient (k_e) 0.80

Secchi depth (m) 4.0

Surface temperature (°C) 12.2

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 83.6

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 4.83 [a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 41.17

Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) 43

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.3					
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			9.29					
Dissolved organic carbon (mg C$\cdot L^{-1}$)		3.9		3.9	3.8			3.9
Particulate carbon (µg C$\cdot L^{-1}$)		401		371	405			201
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		132		143	149			111
Particulate nitrogen (µg N$\cdot L^{-1}$)		62		63	62			40
Ammonia (µg N$\cdot L^{-1}$)		13		11	12			13
Nitrate (µg N$\cdot L^{-1}$)		41		43	45			75
Total phosphorus (µg P$\cdot L^{-1}$)		3		4				3
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		3		4	3			3
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		1960		2050	1960			2050
Total dissolved solids (mg$\cdot L^{-1}$)					66			
Bacteria numbers ($x10^6 \cdot mL^{-1}$)		0.75		0.80	0.92			1.15
Glucose turnover time (h)	219	920	698	600	255	171	110	222
Dark bottle glucose turnover time (h)		861		863	397			268
Total primary production (mg C$\cdot m^{-3} \cdot h^{-1}$)	1.52	0.81	1.12	0.92	0.33	0.14	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		3.58		4.60	5.20			1.48
Algal numbers ($x10^8 \cdot m^{-3}$)		82			48			
Algal volume ($mm^3 \cdot m^{-3}$)		2503			554			

[a] during incubation period

Table 5. Physical, chemical and biological data from Babine Lake, Station 2, June 4, 1980.

Compensation depth (m) 7.1 ✓
Extinction coefficient (k_e) 0.62 ✓
Secchi depth (m) 6.5 ✓

Surface temperature (°C) 5.8 ✓
Zooplankton biomass (mg dry wt.·m^{-3}) 18.1 ✓

Einsteins·m^{-2}·h^{-1} 4.86 [a]
Einsteins·m^{-2}·d^{-1} 41.17
Daily primary production (mg C·m^{-2}·d^{-1}) 33 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.1 ✓					
Dissolved inorganic carbon (mg C·L^{-1})			10.70 ✓					
Dissolved organic carbon (mg C·L^{-1})		3.5		3.7	4.4			
Particulate carbon (μg C·L^{-1})		167		144	145 ✓			167
Dissolved kjeldahl nitrogen (μg N·L^{-1})		111		128	143			40
Particulate nitrogen (μg N·L^{-1})		27		24	21 ✓			23
Ammonia (μg N·L^{-1})		13		14	13 ✓			8
Nitrate (μg N·L^{-1})		90		91	97 ✓			91
Total phosphorus (μg P·L^{-1})		3		3	3 ✓			2
Total dissolved phosphorus (μg P·L^{-1})		4		2	4 ✓			4
Soluble reactive silicon (μg Si·L^{-1})		2080		2000	2060 ✓			2000
Total dissolved solids (mg·L^{-1})					73 ✓			
Bacteria numbers (x10^6·mL^{-1})		1.04		0.81	0.99 ✓			0.98
Glucose turnover time (h)	438	194	216	270	593	532	427	1779
Dark bottle glucose turnover time (h)		238		480	646			1208
Total primary production (mg C·m^{-3}·h^{-1})	1.36	1.02	0.89	0.53	1.10	0.09	0.02	0.00
Total chlorophyll (mg·m^{-3})		2.62		1.70	1.48 ✓			1.04
Algal numbers (x10^8·m^{-3})		46			19			
Algal volume (mm^3·m^{-3})		139			110			

[a] during incubation period

Table 6. Physical, chemical and biological data from Babine Lake, Station 3, June 2, 1980.

Compensation depth (m) 7.1

Extinction coefficient (k_e) 0.60

Secchi depth (m) 5.5

Surface temperature (^{o}C) ______

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 77.3

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.72[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 21.74

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 138

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.4					
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			10.94					
Dissolved organic carbon (mg C$\cdot$L^{-1})		4.4		4.0	4.1			3.9
Particulate carbon (µg C$\cdot$L^{-1})		271		333	195			224
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		126		109	97			144
Particulate nitrogen (µg N$\cdot$L^{-1})		45		45	35			31
Ammonia (µg N$\cdot$L^{-1})		13		9	7			11
Nitrate (µg N$\cdot$L^{-1})		73		76	78			85
Total phosphorus (µg P$\cdot$L^{-1})		5		4	4			4
Total dissolved phosphorus (µg P$\cdot$L^{-1})		3		4	3			3
Soluble reactive silicon (µg Si$\cdot$L^{-1})		2030		2060	2030			2060
Total dissolved solids (mg$\cdot$L^{-1})					72			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.13		0.93	0.30			0.99
Glucose turnover time (h)	230	167	388	373	242	434	294	245
Dark bottle glucose turnover time (h)		2533		245	216			
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	4.53	2.36	1.17	1.69	0.96	0.18	0.02	0.00
Total chlorophyll (mg$\cdot$m^{-3})		4.00		3.60	4.22			2.44
Algal numbers (x10$^{8}\cdot$m^{-3})		51			61			
Algal volume (mm$^{3}\cdot$m^{-3})		224			296			

[a] during incubation period

Table 7. Physical, chemical and biological data from Babine Lake, Station 4, June 2, 1980.

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Compensation depth (m) 5.5 ✓	Surface temperature (^{o}C) 6.8 ✓	Einsteins·m^{-2}·h^{-1} 2.71 [a]
Extinction coefficient (k_e) 0.55 ✓	Zooplankton biomass (mg dry wt.·m^{-3}) 50.5 ✓	Einsteins·m^{-2}·d^{-1} 21.74
Secchi depth (m) 4.5 ✓		Daily primary production (mg C·m^{-2}·d^{-1}) 124 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.5 ✓					
Dissolved inorganic carbon (mg C·L^{-1})			9.46 ✓					
Dissolved organic carbon (mg C·L^{-1})		4.2		4.0	3.9			4.0
Particulate carbon (μg C·L^{-1})		198		238	227 ✓			237
Dissolved kjeldahl nitrogen (μg N·L^{-1})		142		205	188			166
Particulate nitrogen (μg N·L^{-1})		37		43	43 ✓			49
Ammonia (μg N·L^{-1})		<4		5	10 ✓			9
Nitrate (μg N·L^{-1})		81		80	79 ✓			80
Total phosphorus (μg P·L^{-1})		6		4	5 ✓			3
Total dissolved phosphorus (μg P·L^{-1})		3		3	3 ✓			2
Soluble reactive silicon (μg Si·L^{-1})		2070		2060	2060 ✓			2080
Total dissolved solids (mg·L^{-1})					71 ✓			
Bacteria numbers (x10^{6}·mL^{-1})		1.04		0.84	0.94 ✓			0.97
Glucose turnover time (h)	159	256	126	274	481	240	820	746
Dark bottle glucose turnover time (h)		424		158	358			235
Total primary production (mg C·m^{-3}·h^{-1})	3.27	1.98	1.83	1.96	0.39	0.15	0.13	0.00
Total chlorophyll (mg·m^{-3})		4.42		4.10	3.50 ✓			2.86
Algal numbers (x10^{8}·m^{-3})		51			37			
Algal volume (mm^{3}·m^{-3})		236			218			

[a] during incubation period

Table 8. Physical, chemical and biological data from Babine Lake, Station 5, June 3, 1980.

Compensation depth (m) 7.1 ✓

Extinction coefficient (k_e) 0.59 ✓

Secchi depth (m) 5.5 ✓

Surface temperature (°C) 6.4 ✓

Zooplankton biomass (mg dry wt.·m^{-3}) 41.2 ✓

Einsteins·m^{-2}·h^{-1} 4.25 [a]

Einsteins·m^{-2}·d^{-1} 44.26

Daily primary production (mg C·m^{-2}·d^{-1}) 49 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.3 ✓					
Dissolved inorganic carbon (mg C·L^{-1})			10.74 ✓					
Dissolved organic carbon (mg C·L^{-1})		3.8		3.6	3.8			5.7
Particulate carbon (μg C·L^{-1})		209		171	120 ✓			137
Dissolved kjeldahl nitrogen (μg N·L^{-1})		177		164	163			153
Particulate nitrogen (μg N·L^{-1})		32		41	28 ✓			23
Ammonia (μg N·L^{-1})		9		7	9 ✓			8
Nitrate (μg N·L^{-1})		90		89	95 ✓			99
Total phosphorus (μg P·L^{-1})		3		5	3 ✓			3
Total dissolved phosphorus (μg P·L^{-1})		3		2	3 ✓			2
Soluble reactive silicon (μg Si·L^{-1})		2140		2160	2190 ✓			2180
Total dissolved solids (mg·L^{-1})					68 ✓			
Bacteria numbers (x10^6·mL^{-1})		0.84		0.85	0.76 ✓			0.60
Glucose turnover time (h)	380	377	1278	982	373	320	439	1006
Dark bottle glucose turnover time (h)		171		558	560			1202
Total primary production (mg C·m^{-3}·h^{-1})	2.03	0.84	0.85	0.46	0.49	0.06	0.02	0.00
Total chlorophyll (mg·m^{-3})		3.22		2.42	1.50 ✓			1.22
Algal numbers (x10^8·m^{-3})		50			50			
Algal volume (mm^3·m^{-3})		156			132			

[a] during incubation period

Table 9. Physical, chemical and biological data from Babine Lake, Station 1, September 29, 1980.

Compensation depth (m) 6.3 ✓
Extinction coefficient (k_e) 0.67 ✓
Secchi depth (m) 4.5 ✓

Surface temperature (°C) 10.9 ✓
Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 24.8 ✓

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.33[a]
Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 16.88
Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 86 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.7			7.5 ✓		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			9.07			9.33 ✓		
Dissolved organic carbon (mg C$\cdot$L^{-1})		6.5		>7.5	>7.5			>7.5
Particulate carbon (µg C$\cdot$L^{-1})		254		231	252 ✓			166
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		121		106	75			120
Particulate nitrogen (µg N$\cdot$L^{-1})		38		37	38 ✓			20
Ammonia (µg N$\cdot$L^{-1})		4		<4	7 ✓			4
Nitrate (µg N$\cdot$L^{-1})		38		36	40 ✓			108
Total phosphorus (µg P$\cdot$L^{-1})		1		<1	1 ✓			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		1	1 ✓			<1
Total dissolved solids (mg$\cdot$L^{-1})					64 ✓			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.28	1.19	1.28	0.88	1.10 ✓	1.14	0.70	0.76
Glucose turnover time (h)	54	52	39	54	65	101	48	379
Dark bottle glucose turnover time (h)		67		136				545
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.36	2.76	2.34	2.08	0.75	0.21	0.13	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.54		2.70	2.60 ✓			0.74
Algal numbers (x10$^{8}\cdot$m^{-3})		58			78			
Algal volume (mm$^{3}\cdot$m^{-3})		146			197			

[a] during incubation period

Table 10. Physical, chemical and biological data from Babine Lake, Station 2, September 29, 1980.

Compensation depth (m) 7.2 ✓

Extinction coefficient (k_e) 0.59 ✓

Secchi depth (m) 4.5 ✓

Surface temperature (°C) 11.4 ✓

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 79.9 ✓

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 2.37 [a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 16.88

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) 116 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.6			7.6 ✓		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)			9.23			9.31 ✓		
Dissolved organic carbon (mg $C \cdot L^{-1}$)		>7.5		>7.5	>7.5			>7.5
Particulate carbon (μg $C \cdot L^{-1}$)		243		239	261 ✓			228
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)		104		121	87			113
Particulate nitrogen (μg $N \cdot L^{-1}$)		34		35	43 ✓			31
Ammonia (μg $N \cdot L^{-1}$)		6		5	<4 ✓			5
Nitrate (μg $N \cdot L^{-1}$)		56		54	55 ✓			55
Total phosphorus (μg $P \cdot L^{-1}$)		2		2	3 ✓			1
Total dissolved phosphorus (μg $P \cdot L^{-1}$)		1		1	<1 ✓			<1
Total dissolved solids (mg$\cdot L^{-1}$)					62 ✓			
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.46	1.34	1.17	1.10	✓	1.61	1.40	1.31
Glucose turnover time (h)	184	53	44	56	61	43	59	307
Dark bottle glucose turnover time (h)		102		50	67			90
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	2.63	3.42	3.50	2.66	1.13	0.38	0.22	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.52		2.34	2.46 ✓			1.96
Algal numbers ($\times 10^8 \cdot m^{-3}$)		71			104			
Algal volume ($mm^3 \cdot m^{-3}$)		221			178			

[a] during incubation period

Table 11. Physical, chemical and biological data from Babine Lake, Station 3, September 30, 1980.

Compensation depth (m) 7.4 ✓

Extinction coefficient (k_e) 0.56 ✓

Secchi depth (m) 4.5 ✓

Surface temperature (°C) 10.9 ✓

Zooplankton biomass (mg dry wt.·m^{-3}) 52.5

Einsteins·m^{-2}·h^{-1} 0.55 [a]

Einsteins·m^{-2}·d^{-1} 7.37

Daily primary production (mg C·m^{-2}·d^{-1}) 161 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.7			7.6 ✓		
Dissolved inorganic carbon (mg C·L^{-1})			8.97			9.13 ✓		
Dissolved organic carbon (mg C·L^{-1})		7.3		7.5	>7.5			
Particulate carbon (μg C·L^{-1})		209		205	220 ✓			238
Dissolved kjeldahl nitrogen (μg N·L^{-1})		97		105	120			84
Particulate nitrogen (μg N·L^{-1})		31		29	28 ✓			31
Ammonia (μg N·L^{-1})		4		6	5 ✓			10
Nitrate (μg N·L^{-1})		55		55	55 ✓			56
Total phosphorus (μg P·L^{-1})		1		2	1 ✓			1
Total dissolved phosphorus (μg P·L^{-1})		2		1	2 ✓			2
Total dissolved solids (mg·L^{-1})					63 ✓			
Bacteria numbers (x10^6·mL^{-1})	1.29	1.75	0.58	1.72	1.61 ✓	1.75	1.31	1.23
Glucose turnover time (h)	379	139	167	123	142	249	235	1993
Dark bottle glucose turnover time (h)				301				1309
Total primary production (mg C·m^{-3}·h^{-1})	4.03	2.93	1.70	0.84	0.55	0.36	0.29	0.00
Total chlorophyll (mg·m^{-3})		2.30		2.60	2.08 ✓			1.86
Algal numbers (x10^8 ·m^{-3})					62			
Algal volume (mm^3·m^{-3})					336			

[a] during incubation period

Table 12. Physical, chemical and biological data from Babine Lake, Station 4, September 30, 1980.

Compensation depth (m) 6.9 ✓

Extinction coefficient (k_e) 0.62 ✓

Secchi depth (m) 4.5 ✓

Surface temperature (°C) 11.2 ✓

Zooplankton biomass (mg dry wt.·m^{-3}) 48.7

Einsteins·m^{-2}·h^{-1} 0.49[a]

Einsteins·m^{-2}·d^{-1} 7.37

Daily primary production (mg C·m^{-2}·d^{-1}) 171 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.6			7.5 ✓		
Dissolved inorganic carbon (mg C·L^{-1})			9.11			9.19 ✓		
Dissolved organic carbon (mg C·L^{-1})		>7.5		7.3	>7.5			>7.5
Particulate carbon (μg C·L^{-1})		248		275	257 ✓			258
Dissolved kjeldahl nitrogen (μg N·L^{-1})		116		101	114			125
Particulate nitrogen (μg N·L^{-1})		30		41	31 ✓			35
Ammonia (μg N·L^{-1})		6		<4	5 ✓			5
Nitrate (μg N·L^{-1})		49		48	49 ✓			50
Total phosphorus (μg P·L^{-1})		2		1	1 ✓			1
Total dissolved phosphorus (μg P·L^{-1})		2			2 ✓			1
Total dissolved solids (mg·L^{-1})					59 ✓			
Bacteria numbers (x10^6·mL^{-1})	1.96	2.05	1.83	1.95	1.50 ✓	1.61	1.62	1.29
Glucose turnover time (h)								
Dark bottle glucose turnover time (h)								
Total primary production (mg C·m^{-3}·h^{-1})	2.91	3.67	2.13	0.97	0.38	0.30	0.30	0.00
Total chlorophyll (mg·m^{-3})		2.46		2.68	2.60 ✓			2.24
Algal numbers (x10^8·m^{-3})					83			
Algal volume (mm^3·m^{-3})					568			

[a] during incubation period

Table 13. Physical, chemical and biological data from Babine Lake, Station 5, September 30, 1980.

Compensation depth (m) 2.5 ✓

Extinction coefficient (k_e) 1.87 ✓

Secchi depth (m) 5.0 ✓

Surface temperature (°C) 11.7 ✓

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 100.6 ✓

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.49 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 7.37

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 324 ✓

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.7			7.6 ✓		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			9.09			9.25 ✓		
Dissolved organic carbon (mg C$\cdot$L^{-1})		7.4		>7.5	>7.5			>7.5
Particulate carbon (µg C$\cdot$L^{-1})		319		250	279 ✓			174
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		712		239	88			<5
Particulate nitrogen (µg N$\cdot$L^{-1})		48		36	40 ✓			21
Ammonia (µg N$\cdot$L^{-1})		4		5	6 ✓			<4
Nitrate (µg N$\cdot$L^{-1})		39		39	39 ✓			100
Total phosphorus (µg P$\cdot$L^{-1})		1		1	2 ✓			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		1		1	2 ✓			2
Total dissolved solids (mg$\cdot$L^{-1})					61 ✓			
Bacteria numbers (x10$^6\cdot$mL^{-1})	1.31	1.20	1.29	1.29	1.50 ✓		1.32	0.74
Glucose turnover time (h)	341	173	107	121	453	203	97	738
Dark bottle glucose turnover time (h)				99	131			2769
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	7.68	7.35	3.05	1.82	0.67	0.74	0.38	0.00
Total chlorophyll (mg$\cdot$m^{-3})		3.00		2.80	3.26 ✓			1.06
Algal numbers (x10$^8\cdot$m^{-3})		96			94			
Algal volume (mm$^3\cdot$m^{-3})		316			621			

[a] during incubation period

Table 14. Physical, chemical and biological data from Bonilla Lake, May 2, 1980.

Compensation depth (m) 4.9 Surface temperature (^{o}C) 6.0 Einsteins·m^{-2}·h^{-1} 5.81 [a]
Extinction coefficient (k_e) 0.91 Zooplankton biomass (mg dry wt.·m^{-3}) 4.5 Einsteins·m^{-2}·d^{-1} 41.23
Secchi depth (m) 4.5 Daily primary production (mg C·m^{-2}·d^{-1}) 4

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.7		
Dissolved inorganic carbon (mg C·L^{-1})			0.72			0.72		
Dissolved organic carbon (mg C·L^{-1})		3.0		3.3	2.8			
Particulate carbon (µg C·L^{-1})		292		241	270			349
Dissolved kjeldahl nitrogen (µg N·L^{-1})		31		53	14			50
Particulate nitrogen (µg N·L^{-1})		32		31	30			29
Ammonia (µg N·L^{-1})		13		18	7			8
Nitrate (µg N·L^{-1})		8		7	8			8
Total phosphorus (µg P·L^{-1})		3		1	1			<1
Total dissolved phosphorus (µg P·L^{-1})		1		2	1			<1
Soluble reactive silicon (µg Si·L^{-1})		540		480	510			580
Total dissolved solids (mg·L^{-1})					28			
Bacteria numbers (x10^{6}·mL^{-1})	0.84	0.90	0.84	0.81	0.82	0.81	0.75	0.74
Glucose turnover time (h)	276	113	105	103	121	111	144	198
Dark bottle glucose turnover time (h)		311		138	152			390
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	0.20	0.16	0.13	0.06	0.01	0.00	0.00	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		0.10		0.04	0.00			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		0.06		0.02	0.01			
Total chlorophyll (mg·m^{-3})		0.28		0.26	0.26			0.18
Algal numbers (x10^{8}·m^{-3})		61			18			7
Algal volume (mm^{3}·m^{-3})		116			149			60

[a] during incubation period

Table 15. Physical, chemical and biological data from Bonilla Lake, May 29, 1980

Compensation depth (m) 5.8 Surface temperature (^{o}C) 12.1 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 4.99 [a]

Extinction coefficient (k_e) 0.75 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.9 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 49.27

Secchi depth (m) 4.5 Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 174

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.7		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			0.80			0.69		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		2.5		2.5	2.6			3.0
Particulate carbon (μg $C\cdot L^{-1}$)		362		324	341			282
Dissolved kjeldahl nitrogen (μg $N\cdot L^{-1}$)		64		137	83			82
Particulate nitrogen (μg $N\cdot L^{-1}$)		62		88	64			35
Ammonia (μg $N\cdot L^{-1}$)		10		13	13			15
Nitrate (μg $N\cdot L^{-1}$)		<1		<1	<1			6
Total phosphorus (μg $P\cdot L^{-1}$)		3		4	4			3
Total dissolved phosphorus (μg $P\cdot L^{-1}$)		1		1	1			1
Soluble reactive silicon (μg $Si\cdot L^{-1}$)		570		560	560			600
Total dissolved solids (mg$\cdot L^{-1}$)					16			
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	0.96	1.00		1.12	0.98	1.07	1.04	0.91
Glucose turnover time (h)	34	46	44	45	50	31	38	120
Dark bottle glucose turnover time (h)		54		41				186
Primary production > 0.2 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)	7.97	5.17	4.21	2.20	0.37	0.07	0.00	0.00
Primary production 0.2-8.0 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)		4.04		1.66	0.25			
Primary production > 8.0 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)		1.13		0.54	0.12			
Total chlorophyll (mg$\cdot m^{-3}$)		4.60		4.39	3.26			0.26
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		268			81			37
Algal volume ($mm^{3}\cdot m^{-3}$)		1561			1585			138

[a] during incubation period

Table 16. Physical, chemical and biological data from Bonilla Lake, June 26, 1980.

Compensation depth (m) 4.6 Surface temperature (°C) 17.6 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 2.43[a]
Extinction coefficient (k_e) 0.94 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 16.8 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 38.40
Secchi depth (m) 3.5 Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 1065

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.6			5.5		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			0.86			1.01		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		2.5		2.4	2.3			2.3
Particulate carbon (µg $C\cdot L^{-1}$)		545		539	572			267
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		78		73	58			71
Particulate nitrogen (µg $N\cdot L^{-1}$)		91		90	98			38
Ammonia (µg $N\cdot L^{-1}$)		<4		<4	<4			5
Nitrate (µg $N\cdot L^{-1}$)		<1		<1	<1			8
Total phosphorus (µg $P\cdot L^{-1}$)		8		9	8			2
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		2		1	3			<1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		450		410	460			520
Total dissolved solids (mg$\cdot L^{-1}$)					40			
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	2.72	2.56	2.62	2.70	2.74	2.33	1.06	1.16
Glucose turnover time (h)	34	34	25	39	54	222	153	530
Dark bottle glucose turnover time (h)		149		27	26			536
Primary production > 0.2 µm (mg $C\cdot m^{-3}\cdot h^{-1}$)	22.59	20.03	14.71	9.90	2.92	0.00	0.00	0.00
Primary production 0.2-3.0 µm (mg $C\cdot m^{-3}\cdot h^{-1}$)		16.92		8.08	2.53			
Primary production 3.0-8.0 µm (mg $C\cdot m^{-3}\cdot h^{-1}$)		3.11		1.82	0.39			
Primary production > 8.0 µm (mg $C\cdot m^{-3}\cdot h^{-1}$)		1.93		0.00	0.00			
Total chlorophyll (mg$\cdot m^{-3}$)		3.32		3.94	3.50			0.60
Algal numbers ($\times 10^8\cdot m^{-3}$)		116[b]			240			
Algal volume ($mm^3\cdot m^{-3}$)		1338[b]			1992			

[a] during incubation period
[b] no count for ultraphytoplankton

Table 17. Physical, chemical and biological data from Bonilla Lake, July 23, 1980.

Compensation depth (m) 4.6 Surface temperature (°C) 17.6 Einsteins$\cdot m^{-2} \cdot h^{-1}$ 3.29 [a]

Extinction coefficient (k_e) 0.95 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 33.5 Einsteins$\cdot m^{-2} \cdot d^{-1}$ 30.57

Secchi depth (m) 3.5 Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) 222

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			5.9		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			0.51			0.46		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		7.2		7.1	7.0			6.0
Particulate carbon (μg C$\cdot L^{-1}$)		631		588	528			237
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		139		169	116			115
Particulate nitrogen (μg N$\cdot L^{-1}$)		99		95	100			45
Ammonia (μg N$\cdot L^{-1}$)		19		17	18			27
Nitrate (μg N$\cdot L^{-1}$)		<1		<1	<1			8
Total phosphorus (μg P$\cdot L^{-1}$)		6		5	5			1
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2		1	2			<1
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		250		260	270			460
Total dissolved solids (mg$\cdot L^{-1}$)					20			
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	4.29	4.28	3.48	2.73	3.54	3.73	1.52	0.86
Glucose turnover time (h)	15	17	19	21	25	23	122	159
Dark bottle glucose turnover time (h)		84		38	49			1508
Primary production > 0.2 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)	18.40	8.19	3.60	1.65	0.40	0.02	0.00	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)		4.83		0.94	0.22			
Primary production > 8.0 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)		3.36		0.71	0.18			
Total chlorophyll (mg$\cdot m^{-3}$)		7.68		7.30	6.64			0.66
Algal numbers ($\times 10^8 \cdot m^{-3}$)		257			199			46
Algal volume ($mm^3 \cdot m^{-3}$)		1028			838			134

[a] during incubation period

Table 18. Physical, chemical and biological data from Bonilla Lake, August 24, 1980.

Compensation depth (m) 4.1 Surface temperature (°C) 16.0 Einsteins·$m^{-2}·h^{-1}$ 1.31[a]

Extinction coefficient (k_e) 1.10 Zooplankton biomass (mg dry wt.·m^{-3}) 36.4 Einsteins·$m^{-2}·d^{-1}$ 25.75

Secchi depth (m) 2.5 Daily primary production (mg C·$m^{-2}·d^{-1}$) 429

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			6.4		
Dissolved inorganic carbon (mg C·L^{-1})			0.90			0.75		
Dissolved organic carbon (mg C·L^{-1})		6.2		5.9				5.6
Particulate carbon (μg C·L^{-1})		650		681	654			318
Dissolved kjeldahl nitrogen (μg N·L^{-1})		85		83	51			68
Particulate nitrogen (μg N·L^{-1})		92		90	91			33
Ammonia (μg N·L^{-1})		8		7	7			9
Nitrate (μg N·L^{-1})		1		1	<1			12
Total phosphorus (μg P·L^{-1})		9		9	8			4
Total dissolved phosphorus (μg P·L^{-1})		3		2	3			2
Soluble reactive silicon (μg Si·L^{-1})		520		520	460			580
Total dissolved solids (mg·L^{-1})					24			
Bacteria numbers (x10^6·mL^{-1})	3.30	2.66	2.48	3.08	2.78	3.08	1.58	0.98
Glucose turnover time (h)	18	14	31	16	15	20	21	92
Dark bottle glucose turnover time (h)		119		14	212			2523
Primary production > 0.2 μm (mg C·$m^{-3}·h^{-1}$)	11.54	8.56	4.17	1.40	0.29	0.18	0.05	0.00
Primary production 0.2-8.0 μm (mg C·$m^{-3}·h^{-1}$)		6.52		1.08	0.20			
Primary production > 8.0 μm (mg C·$m^{-3}·h^{-1}$)		2.04		0.32	0.09			
Total chlorophyll (mg·m^{-3})		5.72		5.48	5.22			0.64
Algal numbers (x10^8·m^{-3})		410			685			
Algal volume ($mm^3·m^{-3}$)		795			1193			

[a] during incubation period

Table 19. Nutrient data following fertilization of Bonilla Lake, August 24, 1980 at 1045 h.

Depth (m)	1	3	5	20
Fertilization + 10 minutes				
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	72	92	85	53
Ammonia (µg $N \cdot L^{-1}$)	72	7	7	10
Nitrate (µg $N \cdot L^{-1}$)	74	3	1	17
Total phosphorus (µg $P \cdot L^{-1}$)	47	8	8	3
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	16	2	2	2
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	550	580	500	610
Fertilization + 30 minutes				
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	82	66	61	85
Ammonia (µg $N \cdot L^{-1}$)	7	7	7	10
Nitrate (µg $N \cdot L^{-1}$)	3	<1	<1	13
Total phosphorus (µg $P \cdot L^{-1}$)	10	8	9	7
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	5	4	4	2
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	530	590	500	610

Table 20. Nutrient data following fertilization of Bonilla Lake, August 24, 1980 at 1045 h.

Depth (m)	1	3	5	20
Fertilization + 1 hour				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	78	87	74	67
Ammonia (μg N·L^{-1})	7	8	7	10
Nitrate (μg N·L^{-1})	3	<1	2	13
Total phosphorus (μg P·L^{-1})	10	10	11	5
Total dissolved phosphorus (μg P·L^{-1})	5	6	3	1
Soluble reactive silicon (μg Si·L^{-1})	450	560	470	560
Fertilization + 2 hours				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	115	73	81	53
Ammonia (μg N·L^{-1})	17	7	7	11
Nitrate (μg N·L^{-1})	22	2	<1	15
Total phosphorus (μg P·L^{-1})	14	9	9	4
Total dissolved phosphorus (μg P·L^{-1})	7	6	4	3
Soluble reactive silicon (μg Si·L^{-1})	480	530	580	610

Table 21. Nutrient data following fertilization of Bonilla Lake, August 24, 1980 at 1045 h.

Depth (m)	1	3	5	20
Fertilization + 4 hours				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	80	65	103	68
Ammonia (μg N·L^{-1})	8	7	7	11
Nitrate (μg N·L^{-1})	13	2	2	18
Total phosphorus (μg P·L^{-1})	11	11	11	3
Total dissolved phosphorus (μg P·L^{-1})	6	7	6	5
Soluble reactive silicon (μg Si·L^{-1})	510	490	530	560
Fertilization + 8 hours				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	79	87	86	76
Ammonia (μg N·L^{-1})	6	6	6	10
Nitrate (μg N·L^{-1})	1	<1	<1	12
Total phosphorus (μg P·L^{-1})	9	9	9	3
Total dissolved phosphorus (μg P·L^{-1})	6	6	3	3
Soluble reactive silicon (μg Si·L^{-1})	580	540	450	610

Table 22. Zooplankton biomass data from five consecutive hauls from Bonilla Lake, August 24, 1980.

Haul No.	Zooplankton biomass (mg dry wt.·m^{-3})
1	101.0
2	103.4
3	97.9
4	85.9
5	110.5

Table 23. Physical, chemical and biological data from Bonilla Lake, August 25, 1980.

Compensation depth (m) 2.8

Extinction coefficient (k_e) 1.60

Secchi depth (m) 2.5

Surface temperature (°C) 15.8

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 179.1

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.06 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 10.25

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 108

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.60			0.87		
Dissolved organic carbon (mg C$\cdot$L^{-1})		6.1		5.8	6.9			6.4
Particulate carbon (µg C$\cdot$L^{-1})		711		751	788			305
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		82		87	100			73
Particulate nitrogen (µg N$\cdot$L^{-1})		103		111	112			38
Ammonia (µg N$\cdot$L^{-1})		6		7	7			11
Nitrate (µg N$\cdot$L^{-1})		1		8	10			11
Total phosphorus (µg P$\cdot$L^{-1})		9		12	10			3
Total dissolved phosphorus (µg P$\cdot$L^{-1})		5		4	3			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		530		530	510			620
Bacteria numbers (x10$^6\cdot$mL^{-1})		2.73	2.42	2.39	2.23	2.30	1.20	0.77
Glucose turnover time (h)	54	29	20	23	14	22	89	260
Dark bottle glucose turnover time (h)		27			79			207
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	6.60	3.49	1.83	0.75	0.39	0.24	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		5.64		6.22	5.82			0.60
Algal numbers (x10$^8\cdot$m^{-3})		855			567			
Algal volume (mm$^3\cdot$m^{-3})		1828			1185			

[a] during incubation period

Table 24. Physical, chemical and biological data from Bonilla Lake, August 26, 1980.

Compensation depth (m) 2.8 Surface temperature (^{o}C) 16.1 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 1.33 [a]
Extinction coefficient (k_e) 1.60 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 99.7 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 14.23
Secchi depth (m) 2.5 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 130

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.4		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)								
Dissolved organic carbon (mg C$\cdot L^{-1}$)		6.2		6.1	7.2			>7.5
Particulate carbon (μg C$\cdot L^{-1}$)		726		694	694			382
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		77		87	103			77
Particulate nitrogen (μg N$\cdot L^{-1}$)		117		112	107			53
Ammonia (μg N$\cdot L^{-1}$)		6		6	6			9
Nitrate (μg N$\cdot L^{-1}$)		2		3	2			13
Total phosphorus (μg P$\cdot L^{-1}$)		10		10	10			5
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		3		3	3			2
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		530		530	510			600
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	2.57	2.07	1.78	2.23	2.32	2.62	2.15	0.97
Glucose turnover time (h)	69	19	22	21	33	31	56	1202
Dark bottle glucose turnover time (h)		24		22	33			1279
Primary production > 0.2 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)	7.23	4.89	2.02	0.74	0.10	0.02	0.02	0.00
Primary production 0.2-3.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		2.34		0.36	0.02			
Primary production 3.0-8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		1.60		0.21	0.01			
Primary production > 8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		0.95		0.17	0.07			
Total chlorophyll (mg$\cdot m^{-3}$)		6.56		6.98	6.80			0.56
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		483			1012			44
Algal volume ($mm^{3}\cdot m^{-3}$)		937			1542			78

[a] during incubation period

Table 25. Physical, chemical and biological data from Bonilla Lake, August 27, 1980.

Compensation depth (m) 3.9 Surface temperature (°C) 15.5 Einsteins·m^{-2}·h^{-1} 1.24 [a]

Extinction coefficient (k_e) 1.12 Zooplankton biomass (mg dry wt.·m^{-3}) 53.8 Einsteins·m^{-2}·d^{-1} 16.17

Secchi depth (m) 2.5 Daily primary production (mg C·m^{-2}·d^{-1}) 211

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.2		
Dissolved inorganic carbon (mg C·L^{-1})			0.71			0.67		
Dissolved organic carbon (mg C·L^{-1})		5.7		5.9	5.4			4.5
Particulate carbon (µg C·L^{-1})		755		237	716			382
Dissolved kjeldahl nitrogen (µg N·L^{-1})		86		74	85			76
Particulate nitrogen (µg N·L^{-1})		100		109	102			42
Ammonia (µg N·L^{-1})		7		7	6			8
Nitrate (µg N·L^{-1})		4		3	3			14
Total phosphorus (µg P·L^{-1})		10		9	9			3
Total dissolved phosphorus (µg P·L^{-1})		5		5	5			3
Soluble reactive silicon (µg Si·L^{-1})		510		480	550			570
Total dissolved solids (mg·L^{-1})					22			
Bacteria numbers (x10^6·mL^{-1})	1.99	2.48	2.70	2.04	2.69	2.10	2.10	0.92
Glucose turnover time (h)	39	42	27	24	43	108	127	845
Dark bottle glucose turnover time (h)		73		39	54			520
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	10.93	5.70	2.42	0.95	0.20	0.14	0.11	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		4.38		0.75	0.14			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		1.32		0.20	0.06			
Total chlorophyll (mg·m^{-3})		6.64		6.88	5.90			0.61
Algal numbers (x10^8 ·m^{-3})		506			804			
Algal volume (mm^3·m^{-3})		768			1297			

[a] during incubation period

Table 26. Physical, chemical and biological data from Bonilla Lake, August 28, 1980.

Compensation depth (m) 4.0 Surface temperature (^{o}C) 15.8 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 1.85 [a]

Extinction coefficient (k_e) 1.12 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 54.1 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 27.78

Secchi depth (m) 2.5 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 300

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.1		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			0.79			0.97		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		6.0		6.0	6.1			7.4
Particulate carbon (μg C$\cdot L^{-1}$)		635		664	664			386
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		71		88	90			59
Particulate nitrogen (μg N$\cdot L^{-1}$)		100		103	98			48
Ammonia (μg N$\cdot L^{-1}$)		6		7	7			10
Nitrate (μg N$\cdot L^{-1}$)		1		2	2			12
Total phosphorus (μg P$\cdot L^{-1}$)		8		8				4
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		4		4	4			2
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		480		550	500			600
Bacteria numbers (x$10^{6}\cdot mL^{-1}$)	2.53	2.35	2.36	2.47	2.20	2.27	2.11	1.04
Glucose turnover time (h)	11	27	19	16	18	18	28	150
Dark bottle glucose turnover time (h)		27		20	34			74
Primary production $>$ 0.2 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)	9.60	7.86	3.28	1.30	0.40	0.28	0.12	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		6.55		1.07	0.34			
Primary production $>$ 8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		1.31		0.23	0.06			
Total chlorophyll (mg$\cdot m^{-3}$)		5.72		6.14	6.80			0.49
Algal numbers (x$10^{8}\cdot m^{-3}$)		384			819			
Algal volume ($mm^{3}\cdot m^{-3}$)		724			940			

[a] during incubation period

Table 27. Nutrient data from Bonilla Lake inlet streams and rainwater, August 28, 1980.

	Stream A	Stream B	Stream C	Rainwater
Dissolved kjeldahl nitrogen (ug N·L^{-1})	75	96	130	56
Ammonia (ug N·L^{-1})	9	9	11	24
Nitrate (ug N·L^{-1})	3	2	9	35
Total phosphorus (ug P·L^{-1})	4	4	6	6
Total dissolved phosphorus (ug P·L^{-1})	1	5	4	1
Soluble reactive silicon (ug Si·L^{-1})	2540	2030	1910	30
Bacteria numbers (x10^{6}·mL^{-1})	0.27	0.43	0.31	

Table 28. Physical and biological data from Bonilla Lake, August 28, 1980.

	Station A	Station B	Station C	Station D
Compensation depth (m)	1.9	4.0	3.1	2.6
Extinction coefficient (k_e)	2.50	1.12	1.58	1.75
Secchi depth (m)	2.5	2.5	2.5	2.5
Surface temperature (°C)	16.2	15.7	15.6	15.8
Zooplankton biomass (mg dry wt.$\cdot$m^{-3})	33.6	54.1	58.0	18.8
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	2.81	2.75		3.21
Total chlorophyll (mg$\cdot$m^{-3})				
Depth (m)				
1	8.40	6.60	5.14	4.60
3	9.20	6.60	5.40	5.80
5	6.80	6.00	6.00	5.00
20	0.58	0.46	0.52	0.48

Table 29. Physical, chemical and biological data from Bonilla Lake, August 29, 1980.

Compensation depth (m) 2.4 Surface temperature (^{o}C) 14.9 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 0.77 [a]

Extinction coefficient (k_e) 1.95 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 23.5 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 16.68

Secchi depth (m) 2.5 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 219

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			6.1		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			0.86			0.91		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		5.7		5.8	5.4			5.9
Particulate carbon (μg C$\cdot L^{-1}$)		757		679	640			302
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		70		83	91			74
Particulate nitrogen (μg N$\cdot L^{-1}$)		102		109	99			41
Ammonia (μg N$\cdot L^{-1}$)		6		6	6			10
Nitrate (μg N$\cdot L^{-1}$)		1		3	2			12
Total phosphorus (μg P$\cdot L^{-1}$)		10		8	9			3
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2		3	6			
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		480		490	490			590
Bacteria numbers ($x10^{6}\cdot mL^{-1}$)	2.39	2.54	1.96	2.35	1.98	2.26	1.74	0.80
Glucose turnover time (h)	17	20	21	24	17	19	53	366
Dark bottle glucose turnover time (h)		17		20	20			1183
Primary production > 0.2 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)	7.70	3.72	1.40	0.42	0.08	0.10	0.06	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		2.38		0.36				
Primary production > 8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		1.34		0.06	0.11			
Total chlorophyll (mg$\cdot m^{-3}$)		8.46		7.38	7.06			0.58
Algal numbers ($x10^{8}\cdot m^{-3}$)		556			725			
Algal volume ($mm^{3}\cdot m^{-3}$)		708			1203			

[a] during incubation period

Table 30. Physical, chemical and biological data from Bonilla Lake, September 26, 1980.

Compensation depth (m) 3.6 Surface temperature (^{o}C) 14.7 Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.74 [a]

Extinction coefficient (k_e) 1.20 Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 110.3 Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 17.85

Secchi depth (m) 2.5 Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 318

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.8			5.8		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.45			1.35		
Dissolved organic carbon (mg C$\cdot$L^{-1})		6.7		6.8	6.7			7.3
Particulate carbon (µg C$\cdot$L^{-1})		637		640	578			279
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		90		110	214			293
Particulate nitrogen (µg N$\cdot$L^{-1})		89		96	88			27
Ammonia (µg N$\cdot$L^{-1})		<4		5	<4			7
Nitrate (µg N$\cdot$L^{-1})		<1		<1	<1			9
Total phosphorus (µg P$\cdot$L^{-1})		3		4	4			<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		1	1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		480		500	540			1080
Total dissolved solids (mg$\cdot$L^{-1})					19			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.65	2.20	2.26	2.47	2.56	2.59	2.29	1.16
Glucose turnover time (h)	16	22	30	23	21	28	34	82
Dark bottle glucose turnover time (h)		19		25	41			85
Primary production > 0.2 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})	16.50	14.48	5.08	1.61	0.28	0.05	0.00	0.00
Primary production 0.2-8.0 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		12.25		1.36	0.27			
Primary production > 8.0 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		2.23		0.25	0.01			
Total chlorophyll (mg$\cdot$m^{-3})		6.38		7.04	5.64			1.04
Algal numbers (x10$^{8}\cdot$m^{-3})		501			322			20
Algal volume (mm$^{3}\cdot$m^{-3})		402			420			45

[a] during incubation period

Table 31. Physical, chemical and biological data from Bonilla Lake, October 22, 1980.

Compensation depth (m) 3.5 Surface temperature (^{o}C) 10.9 Einsteins·m^{-2}·h^{-1} 0.40 [a]
Extinction coefficient (k_e) 1.24 Zooplankton biomass (mg dry wt.·m^{-3}) 113.6 Einsteins·m^{-2}·d^{-1} 7.61
Secchi depth (m) 2.5 Daily primary production (mg C·m^{-2}·d^{-1}) 55

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.6		
Dissolved inorganic carbon (mg C·L^{-1})			1.13			1.16		
Dissolved organic carbon (mg C·L^{-1})		6.8		6.0	6.3			7.5
Particulate carbon (μg C·L^{-1})		416		504	374			398
Dissolved kjeldahl nitrogen (μg N·L^{-1})		103		110	108			139
Particulate nitrogen (μg N·L^{-1})		58		74	52			59
Ammonia (μg N·L^{-1})		16		11	11			15
Nitrate (μg N·L^{-1})		5		4	4			4
Total phosphorus (μg P·L^{-1})		4		4	5			4
Total dissolved phosphorus (μg P·L^{-1})		2		1	2			<1
Soluble reactive silicon (μg Si·L^{-1})		550		560	540			570
Total dissolved solids (mg·L^{-1})					22			
Bacteria numbers (x10^{6}·mL^{-1})	1.77	1.99	1.92	1.98		1.69	1.77	1.46
Glucose turnover time (h)	65	36	41	35	39	36	37	51
Dark bottle glucose turnover time (h)		31		43	45			72
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	1.92	0.77	0.33	0.17	0.09	0.08	0.00	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		0.63		0.14	0.02			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.14		0.03	0.07			
Total chlorophyll (mg·m^{-3})		3.48		3.36	3.18			2.14
Algal numbers (x10^{8} ·m^{-3})		155			157			75
Algal volume (mm^{3}·m^{-3})		178			341			88

[a]during incubation period

Table 32. Physical, chemical and biological data from Bonilla Lake, December 16, 1980.

Compensation depth (m) 3.5

Extinction coefficient (k_e) 1.21

Secchi depth (m) 2.0

Surface temperature (^{o}C) 5.5

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.6

Depth (m)	0	1	2	3	5	7.5	10	20
Dissolved organic carbon (mg C$\cdot$L^{-1})		7.9		6.8	5.0			6.7
Particulate carbon (µg C$\cdot$L^{-1})		411		360	389			588
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		102		96	102			105
Particulate nitrogen (µg N$\cdot$L^{-1})		4704		2032	1719			2376
Ammonia (µg N$\cdot$L^{-1})		6		6	9			10
Nitrate (µg N$\cdot$L^{-1})		5		5	5			6
Total phosphorus (µg P$\cdot$L^{-1})		3		3	3			3
Total dissolved phosphorus (µg P$\cdot$L^{-1})		3		3	3			3
Soluble reactive silicon (µg Si$\cdot$L^{-1})		510		500	500			500
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.81		1.92	1.44			2.04
Glucose turnover time (h)		35		56	41			43
Total chlorophyll (mg$\cdot$m^{-3})		0.61		0.56	0.79			0.52
Algal numbers (x10$^{8}\cdot$m^{-3})		198			135			
Algal volume (mm$^{3}\cdot$m^{-3})		130			152			

Table 33. Physical, chemical and biological data from Curtis Lake, May 2, 1980.

Compensation depth (m) 6.7

Extinction coefficient (k_e) 0.62

Secchi depth (m) 6.5

Surface temperature (°C) 5.5

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.0

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 4.02[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 41.23

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 33

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.9			6.0		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.09			1.57		
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.8		1.9	2.0			1.9
Particulate carbon (µg C$\cdot$L^{-1})		204		163	200			229
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		49		72	67			55
Particulate nitrogen (µg N$\cdot$L^{-1})		24		27	25			28
Ammonia (µg N$\cdot$L^{-1})		8		7	12			7
Nitrate (µg N$\cdot$L^{-1})		22		22	22			22
Total phosphorus (µg P$\cdot$L^{-1})		1		2	1			2
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		<1				<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		490		470	480			460
Total dissolved solids (mg$\cdot$L^{-1})					12			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.74	0.72	0.75	0.63	0.73	0.63	0.81	0.73
Glucose turnover time (h)	301	112	214	191	146	256	191	251
Dark bottle glucose turnover time (h)		133		367	158			239
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.53	0.41	0.72	0.62	0.28	0.10	0.02	0.00
Total chlorophyll (mg$\cdot$m^{-3})		0.48		1.02	0.78			0.38
Algal numbers (x10$^{8}\cdot$m^{-3})		27			74			
Algal volume (mm$^{3}\cdot$m^{-3})		103			79			

[a] during incubation period

Table 34. Physical, chemical and biological data from Curtis Lake, May 31, 1980.

Compensation depth (m) 7.4
Extinction coefficient (k_e) 0.58
Secchi depth (m) 6.0

Surface temperature (°C) 13.8
Zooplankton biomass 2.4
(mg dry wt.$\cdot m^{-3}$)

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.69 [a]
Einsteins$\cdot m^{-2} \cdot d^{-1}$ 33.90
Daily primary production 413
(mg $C \cdot m^{-2} \cdot d^{-1}$)

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.6			5.8		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)			1.16			1.16		
Dissolved organic carbon (mg $C \cdot L^{-1}$)		1.8		1.6	1.6			
Particulate carbon ($\mu g\ C \cdot L^{-1}$)		276		268	341			207
Dissolved kjeldahl nitrogen ($\mu g\ N \cdot L^{-1}$)		73		66	53			62
Particulate nitrogen ($\mu g\ N \cdot L^{-1}$)		45		41	55			23
Ammonia ($\mu g\ N \cdot L^{-1}$)		12		10	10			13
Nitrate ($\mu g\ N \cdot L^{-1}$)		<1		<1	<1			7
Total phosphorus ($\mu g\ P \cdot L^{-1}$)		2		3	3			3
Total dissolved phosphorus ($\mu g\ P \cdot L^{-1}$)		2		1	2			1
Soluble reactive silicon ($\mu g\ Si \cdot L^{-1}$)		470		500	460			510
Total dissolved solids ($mg \cdot L^{-1}$)					11			
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.99	0.97	0.94	0.61	0.69	0.73	0.65	0.72
Glucose turnover time (h)	121	57	53	59	49	99	243	348
Dark bottle glucose turnover time (h)		41		91	54			
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	7.27	5.13	4.10	2.62	1.26	0.30	0.11	0.00
Total chlorophyll ($mg \cdot m^{-3}$)		3.13		2.15	4.06			0.42
Algal numbers ($\times 10^8 \cdot m^{-3}$)		127			110			
Algal volume ($mm^3 \cdot m^{-3}$)		516			565			

[a] during incubation period

Table 35. Physical, chemical and biological data from Curtis Lake, June 26, 1980.

Compensation depth (m) 7.7

Extinction coefficient (k_e) 0.57

Secchi depth (m) 6.0

Surface temperature (°C) 19.4

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 4.7

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.07 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 38.40

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 259

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.7		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.20			1.22		
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.3		1.5	1.5			1.6
Particulate carbon (µg C$\cdot$L^{-1})		452		362	393			203
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		50		65	77			51
Particulate nitrogen (µg N$\cdot$L^{-1})		68		60	69			36
Ammonia (µg N$\cdot$L^{-1})		<4		5	5			6
Nitrate (µg N$\cdot$L^{-1})		<1		<1	2			21
Total phosphorus (µg P$\cdot$L^{-1})		3		3	3			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		390		340	340			430
Total dissolved solids (mg$\cdot$L^{-1})					25			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	2.38	2.30	1.46	2.26	2.74	2.14	1.02	0.55
Glucose turnover time (h)	36	19	18	19	21	46	112	375
Dark bottle glucose turnover time (h)		23		31	24			509
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	5.82	4.71	2.81	1.41	0.47	0.12	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.42		2.00	2.46			0.36
Algal numbers (x10$^{8}\cdot$m^{-3})		116			240			
Algal volume (mm$^{3}\cdot$m^{-3})		1338			1992			

[a] during incubation period

Table 36. Physical, chemical and biological data from Curtis Lake, July 23, 1980.

Compensation depth (m) 6.7

Extinction coefficient (k_e) 0.65

Secchi depth (m) 5.0

Surface temperature (°C) 17.7

Zooplankton biomass (mg dry wt.·m^{-3}) 11.7

Einsteins·m^{-2}·h^{-1} 3.37[a]

Einsteins·m^{-2}·d^{-1} 30.57

Daily primary production (mg C·m^{-2}·d^{-1}) 108

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.6			6.3		
Dissolved inorganic carbon (mg C·L^{-1})			0.53			0.76		
Dissolved organic carbon (mg C·L^{-1})		4.5		4.7	4.8			4.4
Particulate carbon (μg C·L^{-1})		503		508	475			
Dissolved kjeldahl nitrogen (μg N·L^{-1})		251		210	412			130
Particulate nitrogen (μg N·L^{-1})		83		95	81			
Ammonia (μg N·L^{-1})		15		16	15			15
Nitrate (μg N·L^{-1})		<1		<1	<1			16
Total phosphorus (μg P·L^{-1})		2		3	2			<1
Total dissolved phosphorus (μg P·L^{-1})		2		<1	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		270		300	320			370
Total dissolved solids (mg·L^{-1})					27			
Bacteria numbers (x10^6·mL^{-1})	2.13	2.18	2.30	2.10	2.26	1.96	0.74	0.79
Glucose turnover time (h)	66	16	26	30	32	21	111	162
Dark bottle glucose turnover time (h)		39		81	31			317
Total primary production (mg C·m^{-3}·h^{-1})	3.52	3.85	2.60	1.44	0.37	0.29	0.00	0.00
Total chlorophyll (mg·m^{-3})		4.12		4.22	3.72			0.51
Algal numbers (x10^8·m^{-3})		337			323			
Algal volume (mm^3·m^{-3})		891			1036			

[a] during incubation period

Table 37. Physical, chemical and biological data from Curtis Lake, August 20, 1980.

Compensation depth (m) 5.7	Surface temperature (°C) 17.3	Einsteins·m^{-2}·h^{-1} 5.07 [a]
Extinction coefficient (k_e) 0.76	Zooplankton biomass (mg dry wt.·m^{-3}) 11.4	Einsteins·m^{-2}·d^{-1} 39.83
Secchi depth (m) 4.0		Daily primary production (mg C·m^{-2}·d^{-1}) 218

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.4			6.1		
Dissolved inorganic carbon (mg C·L^{-1})			0.73			0.98		
Dissolved organic carbon (mg C·L^{-1})		5.7		5.5	5.2			5.2
Particulate carbon (μg C·L^{-1})		570		587	645			291
Dissolved kjeldahl nitrogen (μg N·L^{-1})		84		105	88			57
Particulate nitrogen (μg N·L^{-1})		75		78	87			24
Ammonia (μg N·L^{-1})		11		10	8			13
Nitrate (μg N·L^{-1})		2		1	2			25
Total phosphorus (μg P·L^{-1})		5		6	6			2
Total dissolved phosphorus (μg P·L^{-1})		3		4	3			2
Soluble reactive silicon (μg Si·L^{-1})		600		590	630			510
Total dissolved solids (mg·L^{-1})					18			
Bacteria numbers (x10^6·mL^{-1})	2.20	2.21	1.95	2.42	1.78	1.72	0.73	0.64
Glucose turnover time (h)	35	18	17	17	18	28	28	99
Dark bottle glucose turnover time (h)		121		107	292			7627
Total primary production (mg C·m^{-3}·h^{-1})	8.95	7.94	5.74	3.67	1.77	0.06	0.00	0.00
Total chlorophyll (mg·m^{-3})		3.40		3.52	3.82			0.52
Algal numbers (x10^8·m^{-3})		434			470			
Algal volume (mm^3·m^{-3})		1100			1443			

[a] during incubation period

Table 38. Physical, chemical and biological data from Curtis Lake, September 26, 1980.

Compensation depth (m) 5.3

Extinction coefficient (k_e) 0.82

Secchi depth (m) 4.0

Surface temperature (°C) 14.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 11.3

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.99 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 17.85

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 110

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			6.0		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.94			1.26		
Dissolved organic carbon (mg C$\cdot$L^{-1})		5.9		5.4	5.7			4.3
Particulate carbon (µg C$\cdot$L^{-1})		496		442	387			210
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		58		48	52			53
Particulate nitrogen (µg N$\cdot$L^{-1})		64		66	58			20
Ammonia (µg N$\cdot$L^{-1})		<4		<4	<4			5
Nitrate (µg N$\cdot$L^{-1})		2		<1	2			23
Total phosphorus (µg P$\cdot$L^{-1})		3		3	2			<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		1	4			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		560		580	590			470
Total dissolved solids (mg$\cdot$L^{-1})					7			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.71	1.44	1.37	1.61	1.77	1.59	0.88	0.68
Glucose turnover time (h)	17	12	24	14	18	27	40	168
Dark bottle glucose turnover time (h)		16		16	13			194
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	4.50	4.52	2.74	1.31	0.33	0.00	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		7.62		6.54	4.85			0.82
Algal numbers (x10$^{8}\cdot$m^{-3})		246			157			
Algal volume (mm$^{3}\cdot$m^{-3})		560			873			

[a] during incubation period

Table 39. Physical, chemical and biological data from Curtis Lake, October 23, 1980.

Compensation depth (m) 5.4

Extinction coefficient (k_e) 0.80

Secchi depth (m) 4.5

Surface temperature (°C) 11.0

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 10.0

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 0.62[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 7.61

Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) 14

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.5			5.8		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			1.61			1.14		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		6.3		5.1	5.9			5.0
Particulate carbon (μg C$\cdot L^{-1}$)		278		270	285			346
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		65		73	73			65
Particulate nitrogen (μg N$\cdot L^{-1}$)		39		36	45			49
Ammonia (μg N$\cdot L^{-1}$)		14		14	14			13
Nitrate (μg N$\cdot L^{-1}$)		14		13	14			19
Total phosphorus (μg P$\cdot L^{-1}$)		4		3	3			2
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2		2	2			2
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		570		560	560			530
Total dissolved solids (mg$\cdot L^{-1}$)					12			
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.10	1.04	1.17	1.06	1.07	1.06	1.13	0.95
Glucose turnover time (h)	227	49	46	49	38	40	45	77
Dark bottle glucose turnover time (h)		40		50	45			89
Total primary production (mg C$\cdot m^{-3} \cdot h^{-1}$)	1.00	0.65	0.32	0.16	0.05	0.04	0.03	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.28		1.42	1.30			0.94
Algal numbers ($\times 10^8 \cdot m^{-3}$)		72			61			
Algal volume ($mm^3 \cdot m^{-3}$)		97			143			

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[a] during incubation period

Table 40. Physical, chemical and biological data from Devon Lake, May 28, 1980.

Compensation depth (m) 6.6

Extinction coefficient (k_e) 0.66

Secchi depth (m) 5.5

Surface temperature (°C) 12.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.4

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 5.88 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 48.42

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 103

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.7		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.72			0.68		
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.6		1.7	1.8			1.7
Particulate carbon (µg C$\cdot$L^{-1})				298	382			237
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		83		75	77			48
Particulate nitrogen (µg N$\cdot$L^{-1})				47	57			30
Ammonia (µg N$\cdot$L^{-1})		9		9	10			10
Nitrate (µg N$\cdot$L^{-1})		<1		<1	<1			15
Total phosphorus (µg P$\cdot$L^{-1})		2		3	3			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		2	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		470		460	470			490
Total dissolved solids (mg$\cdot$L^{-1})					22			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.83	0.91	0.72	0.82	0.83	0.88	0.86	0.89
Glucose turnover time (h)	32	33	33	38	36	31	30	53
Dark bottle glucose turnover time (h)		39		37	52			162
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	5.10	2.97	2.43	1.39	0.82	0.16	0.01	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.94		3.52	4.64			0.47
Algal numbers (x10$^{8}\cdot$m^{-3})		105			122			
Algal volume (mm$^{3}\cdot$m^{-3})		554			785			

[a] during incubation period

Table 41. Physical, chemical and biological data from Devon Lake, June 27, 1980.

Compensation depth (m) 7.4
Extinction coefficient (k_e) 0.59
Secchi depth (m) 4.5
Surface temperature (°C) 18.1
Zooplankton biomass (mg dry wt.·m^{-3}) 4.2
Einsteins·m^{-2}·h^{-1} 3.37[a]
Einsteins·m^{-2}·d^{-1} 38.24
Daily primary production (mg C·m^{-2}·d^{-1}) 272

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.9			5.7		
Dissolved inorganic carbon (mg C·L^{-1})			0.67			1.00		
Dissolved organic carbon (mg C·L^{-1})		1.7			1.6			1.5
Particulate carbon (µg C·L^{-1})		454		433	445			197
Dissolved kjeldahl nitrogen (µg N·L^{-1})		73		35	98			63
Particulate nitrogen (µg N·L^{-1})		67		70	72			41
Ammonia (µg N·L^{-1})		<4		<4	<4			6
Nitrate (µg N·L^{-1})		<1		<1	<1			16
Total phosphorus (µg P·L^{-1})		3		3	3			2
Total dissolved phosphorus (µg P·L^{-1})		3		1	1			3
Soluble reactive silicon (µg Si·L^{-1})		150		130	190			410
Total dissolved solids (mg·L^{-1})					38			
Bacteria numbers (x10^6·mL^{-1})	1.37	1.47	2.13	1.74	1.51	0.99	1.27	1.25
Glucose turnover time (h)	20	17	20	19	19	23	32	56
Dark bottle glucose turnover time (h)		40		41	21			2265
Total primary production (mg C·m^{-3}·h^{-1})	7.59	6.88	5.29	3.36	1.32	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		3.48		3.66	4.30			0.62
Algal numbers (x10^8·m^{-3})		97			164			
Algal volume (mm^3·m^{-3})		2163			2472			

[a] during incubation period

Table 42. Physical, chemical and biological data from Devon Lake, July 24, 1980.

Compensation depth (m) 7.2
Extinction coefficient (k_e) 0.60
Secchi depth (m) 5.5

Surface temperature (°C) 17.1
Zooplankton biomass (mg dry wt.·m^{-3}) 6.1

Einsteins·m^{-2}·h^{-1} 1.81[a]
Einsteins·m^{-2}·d^{-1} 17.47
Daily primary production (mg C·m^{-2}·d^{-1}) 105

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			5.7		
Dissolved inorganic carbon (mg C·L^{-1})			0.41			0.80		
Dissolved organic carbon (mg C·L^{-1})		6.8		9.3	8.1			10.7
Particulate carbon (µg C·L^{-1})		237		240	221			156
Dissolved kjeldahl nitrogen (µg N·L^{-1})		147		176	241			274
Particulate nitrogen (µg N·L^{-1})		38		37	34			24
Ammonia (µg N·L^{-1})		16		15	16			16
Nitrate (µg N·L^{-1})		<1		<1	<1			16
Total phosphorus (µg P·L^{-1})		3		3	2			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	1			<1
Soluble reactive silicon (µg Si·L^{-1})		80		90	150			350
Total dissolved solids (mg·L^{-1})					16			
Bacteria numbers (x10^6·mL^{-1})	1.98	2.15	1.62	1.81	1.26	0.86	0.73	0.68
Glucose turnover time (h)	22	19	16	15	16	19	33	118
Dark bottle glucose turnover time (h)		32		15	23			215
Total primary production (mg C·m^{-3}·h^{-1})	4.23	2.58	1.08	0.54	0.04	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		3.50		3.58	3.45			0.78
Algal numbers (x10^8·m^{-3})		197			139			
Algal volume (mm^3·m^{-3})		935			1328			

[a] during incubation period

Table 43. Physical, chemical and biological data from Devon Lake, August 20, 1980.

Compensation depth (m) 5.3

Extinction coefficient (k_e) 0.82

Secchi depth (m) 4.0

Surface temperature (°C) 16.5

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.8

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 4.49 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 39.83

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 211

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.9			5.8		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.89			0.70		
Dissolved organic carbon (mg C$\cdot$L^{-1})		5.2		5.9	6.6			6.0
Particulate carbon (µg C$\cdot$L^{-1})		416		461	353			214
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		76		77	76			19
Particulate nitrogen (µg N$\cdot$L^{-1})		56		52	52			25
Ammonia (µg N$\cdot$L^{-1})		8		12	19			19
Nitrate (µg N$\cdot$L^{-1})		<1		2	1			16
Total phosphorus (µg P$\cdot$L^{-1})		5		5	5			2
Total dissolved phosphorus (µg P$\cdot$L^{-1})		4		2	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		510		500	480			530
Total dissolved solids (mg$\cdot$L^{-1})					24			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.92	2.08	1.61	1.80	1.59	1.61	1.07	0.68
Glucose turnover time (h)	24	13	25	16	20	38	42	60
Dark bottle glucose turnover time (h)		344		15	21			10000
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	7.19	7.70	5.41	3.67	0.58	0.10	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		4.24		3.10	3.16			0.46
Algal numbers (x10$^{8}\cdot$m^{-3})		174			101			
Algal volume (mm$^{3}\cdot$m^{-3})		2221			1256			

[a] during incubation period

Table 44. Physical, chemical and biological data from Devon Lake, September 25, 1980.

Compensation depth (m) 4.7

Extinction coefficient (k_e) 0.96

Secchi depth (m) 4.0

Surface temperature (°C) 14.0

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 5.7

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.78[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 22.57

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 106

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			5.8		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.13			1.19		
Dissolved organic carbon (mg C$\cdot$L^{-1})		>7.5		>7.5	>7.5			>7.5
Particulate carbon (µg C$\cdot$L^{-1})				467	409			182
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		64		74	48			60
Particulate nitrogen (µg N$\cdot$L^{-1})		83		71	61			27
Ammonia (µg N$\cdot$L^{-1})		8		5	<4			<4
Nitrate (µg N$\cdot$L^{-1})		<1		<1	<1			15
Total phosphorus (µg P$\cdot$L^{-1})		3		2	3			4
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		440		440	460			460
Total dissolved solids (mg$\cdot$L^{-1})					35			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	2.02	2.04	2.60	2.42	2.14	2.14	0.98	0.64
Glucose turnover time (h)	30	25	17	22	19	35	23	90
Dark bottle glucose turnover time (h)								
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	5.80	3.90	2.70	1.90	0.32	0.00	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		8.20		7.12	6.88			0.72
Algal numbers (x10$^{8}\cdot$m^{-3})		287			235			
Algal volume (mm$^{3}\cdot$m^{-3})		3204			3242			

[a] during incubation period

Table 45. Physical, chemical and biological data from Devon Lake, October 24, 1980.

Compensation depth (m) 4.1

Extinction coefficient (k_e) 1.06

Secchi depth (m) 3.0

Surface temperature (°C) 10.5

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 9.9

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.63[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 6.08

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 10

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.5			5.5		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.90			0.90		
Dissolved organic carbon (mg C$\cdot$L^{-1})		5.5		4.9	5.3			4.0
Particulate carbon (µg C$\cdot$L^{-1})		341		339	353			297
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		116		119	97			107
Particulate nitrogen (µg N$\cdot$L^{-1})		56		58	63			54
Ammonia (µg N$\cdot$L^{-1})		13		10	13			11
Nitrate (µg N$\cdot$L^{-1})		6		3	2			2
Total phosphorus (µg P$\cdot$L^{-1})		3		3	3			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		470		480	470			430
Total dissolved solids (mg$\cdot$L^{-1})					17			
Bacteria numbers (x10$^6\cdot$mL^{-1})	0.97	1.43	1.49	1.29	1.29	1.13	1.28	0.71
Glucose turnover time (h)	65	43	44	47	54	44	46	87
Dark bottle glucose turnover time (h)		51		50	47			110
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.57	0.24	0.13	0.07	0.04	0.04	0.04	0.00
Total chlorophyll (mg$\cdot$m^{-3})		7.96		6.54	6.14			0.68
Algal numbers (x10$^8\cdot$m^{-3})		240			204			
Algal volume (mm$^3\cdot$m^{-3})		2828			2297			

[a] during incubation period

Table 46. Physical, chemical and biological data from Eden Lake, May 3, 1980.

Compensation depth (m) 4.5

Extinction coefficient (k_e) 0.96

Secchi depth (m) 3.5

Surface temperature (^{o}C) 5.9

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 4.4

Depth (m)	1	3	5	20
pH	6.8		6.4	
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)	1891		2592	
Dissolved kjeldahl nitrogen (μg $N\cdot L^{-1}$)	83	70	59	17
Ammonia (μg $N\cdot L^{-1}$)	7	8	9	7
Nitrate (μg $N\cdot L^{-1}$)	43	44	42	43
Total phosphorus (μg $P\cdot L^{-1}$)	2	2	2	2
Total dissolved phosphorus (μg $P\cdot L^{-1}$)	1	1	<1	<1
Soluble reactive silicon (μg $Si\cdot L^{-1}$)	1780	1600	1690	1680
Total dissolved solids ($mg\cdot L^{-1}$)			44	
Total chlorophyll ($mg\cdot m^{-3}$)	0.39	0.22	0.34	0.62
Algal numbers ($x10^{8}\cdot m^{-3}$)	8		14	
Algal volume ($mm^{3}\cdot m^{-3}$)	18		16	

Table 47. Physical, chemical and biological data from Eden Lake, June 24, 1980.

Compensation depth (m) 4.7

Extinction coefficient (k_e) 0.93

Secchi depth (m) 5.0

Surface temperature (°C) 15.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 30.2

Depth (m)	1	3	5	20
pH	6.1		6.1	
Dissolved inorganic carbon (mg C$\cdot$L^{-1})	4191		4107	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	69	59	78	68
Ammonia (µg N$\cdot$L^{-1})	7	10	7	13
Nitrate (µg N$\cdot$L^{-1})	13	14	14	37
Total phosphorus (µg P$\cdot$L^{-1})	2	2	2	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})				
Soluble reactive silicon (µg Si$\cdot$L^{-1})	2220	2800	2380	2260
Total dissolved solids (mg$\cdot$L^{-1})			36	
Total chlorophyll (mg$\cdot$m^{-3})	0.30	3.12	2.44	3.54
Algal numbers (x$10^8\cdot$m^{-3})	49		51	
Algal volume (mm$^3\cdot$m^{-3})	144		83	

Table 48. Physical, chemical and biological data from Eden Lake, September 24, 1980.

Compensation depth (m) 3.9

Extinction coefficient (k_e) 1.13

Secchi depth (m) 3.5

Surface temperature (°C) 14.0

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 27.0

Depth (m)	1	3	5	20
pH		6.7		6.5
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		2600		2086
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	81	102	370	141
Ammonia (µg $N \cdot L^{-1}$)	5	5	4	<4
Nitrate (µg $N \cdot L^{-1}$)	28	29	30	55
Total phosphorus (µg $P \cdot L^{-1}$)	1	1	1	1
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	2	2	2	1
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	2040	2030	2040	1990
Total dissolved solids (mg$\cdot L^{-1}$)			41	
Total chlorophyll (mg$\cdot m^{-3}$)	2.22	1.94	2.24	0.38
Algal numbers ($x10^8 \cdot m^{-3}$)	37		20	
Algal volume ($mm^3 \cdot m^{-3}$)	178		163	

Table 49. Physical, chemical and biological data from Great Central Lake, Station 1, March 18, 1980.

Compensation depth (m) ____

Extinction coefficient (k_e) ____

Secchi depth (m) 12.0

Surface temperature (^{o}C) 5.3

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 3.5

Depth (m)	1	3	5	20
pH		6.6		6.6
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		5.28		5.39
Dissolved kjeldahl nitrogen (μg $N\cdot L^{-1}$)				
Ammonia (μg $N\cdot L^{-1}$)	<4	<4	<4	<4
Nitrate (μg $N\cdot L^{-1}$)	38	39	39	39
Total phosphorus (μg $P\cdot L^{-1}$)	<1	1	1	<1
Total dissolved phosphorus (μg $P\cdot L^{-1}$)	<1	<1	1	<1
Soluble reactive silicon (μg $Si\cdot L^{-1}$)	1130	1130	1130	1150
Bacteria numbers ($x10^{6}\cdot mL^{-1}$)	0.51	0.51	0.51	0.60
Total chlorophyll ($mg\cdot m^{-3}$)	0.56	0.62	0.68	0.62
Algal numbers ($x10^{8}\cdot m^{-3}$)	52		1	
Algal volume ($mm^{3}\cdot m^{-3}$)	508		7	

Table 50. Physical, chemical and biological data from Great Central Lake, Station 2, March 18, 1980.

Compensation depth (m)

Extinction coefficient (k_e)

Secchi depth (m) 12.5

Surface temperature (°C) 6.0

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.5

Depth (m)	1	3	5	20
pH		6.6		6.7
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		4.90		4.15
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)				
Ammonia (µg $N \cdot L^{-1}$)	<4	<4	<4	<4
Nitrate (µg $N \cdot L^{-1}$)	37	38	37	39
Total phosphorus (µg $P \cdot L^{-1}$)	<1	<1	<1	<1
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	<1	<1	<1	<1
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	1090	1100	1110	1130
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.51	0.51	0.51	0.56
Chlorophyll > 0.8 µm (mg$\cdot m^{-3}$)	0.54	0.78	0.94	0.50
Chlorophyll 0.8-54 µm (mg$\cdot m^{-3}$)	0.54	0.78	0.94	0.50
Chlorophyll > 54 µm (mg$\cdot m^{-3}$)	<0.12	<0.12	<0.12	<0.12
Algal numbers ($\times 10^8 \cdot m^{-3}$)	4		5	
Algal volume ($mm^3 \cdot m^{-3}$)	170		174	

Table 51. Physical, chemical and biological data from Great Central Lake, Station 1, April 15, 1980.

Compensation depth (m) 16.1

Extinction coefficient (k_e) 0.27

Secchi depth (m) 10.0

Surface temperature (°C) 7.3

Zooplankton biomass (mg dry wt.·m^{-3}) 1.7

Depth (m)	1	3	5	20
pH		6.6		6.5
Dissolved inorganic carbon (mg C·L^{-1})		5.49		6.00
Dissolved kjeldahl nitrogen (µg N·L^{-1})	36	31	25	13
Ammonia (µg N·L^{-1})	14	16	15	13
Nitrate (µg N·L^{-1})	24	26	27	30
Total phosphorus (µg P·L^{-1})	1	2	2	1
Total dissolved phosphorus (µg P·L^{-1})	1	2	2	1
Soluble reactive silicon (µg Si·L^{-1})	900	900	900	860
Bacteria numbers ($x10^6$·mL^{-1})	0.30	0.38	0.36	0.39
Total chlorophyll (mg·m^{-3})	1.31	1.40	1.34	1.05
Algal numbers ($x10^8$·m^{-3})	29		11	
Algal volume (mm^3·m^{-3})	338		223	

Table 52. Physical, chemical and biological data from Great Central Lake, Station 2, April 15, 1980.

Compensation depth (m) 17.5

Extinction coefficient (k_e) 0.24

Secchi depth (m) 11.0

Surface temperature (^{o}C) 6.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.3

Depth (m)	1	3	5	20
pH		6.5		6.5
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		5.84		6.24
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})	16	14	14	13
Ammonia (μg N$\cdot$L^{-1})	16	14	14	13
Nitrate (μg N$\cdot$L^{-1})	31	31	32	31
Total phosphorus (μg P$\cdot$L^{-1})	1	1	1	1
Total dissolved phosphorus (μg P$\cdot$L^{-1})	1	2	1	<1
Soluble reactive silicon (μg Si$\cdot$L^{-1})	910	900	900	890
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.40	0.41	0.55	0.64
Chlorophyll > 0.8 μm (mg$\cdot$m^{-3})	0.99	1.01	1.02	1.23
Chlorophyll 0.8-54 μm (mg$\cdot$m^{-3})	0.99	1.01	1.02	1.23
Chlorophyll > 54 μm (mg$\cdot$m^{-3})	<0.12	<0.12	<0.12	<0.12
Algal numbers (x10$^{8}\cdot$m^{-3})	14		13	24
Algal volume (mm$^{3}\cdot$m^{-3})	394		658	236

Table 53. Physical, chemical and biological data from Great Central Lake, Station 1, May 16, 1980.

Compensation depth (m) 14.8

Extinction coefficient (k_e) 0.29

Secchi depth (m) 7.3

Surface temperature (^{o}C) 14.6

Zooplankton biomass (mg dry wt.·m^{-3}) 5.0

Depth (m)	1	3	5	20
pH		6.9		6.7
Dissolved inorganic carbon (mg C·L^{-1})		4.04		4.98
Dissolved kjeldahl nitrogen (µg N·L^{-1})	46	76	48	60
Ammonia (µg N·L^{-1})	9	10	10	10
Nitrate (µg N·L^{-1})	<1	<1	<1	33
Total phosphorus (µg P·L^{-1})	1	<1	1	<1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si·L^{-1})	820	920	920	990
Bacteria numbers ($x10^{6}$·mL^{-1})	0.79	0.64	0.74	0.77
Total chlorophyll (mg·m^{-3})	1.03	1.05	1.08	0.88
Algal numbers ($x10^{8}$·m^{-3})	103		96	
Algal volume (mm^{3}·m^{-3})	2541		1957	

Table 54. Physical, chemical and biological data from Great Central Lake, Station 2, May 16, 1980.

Compensation depth (m) 14.9
Surface temperature (^{o}C) 13.0
Extinction coefficient (k_e) 0.28
Zooplankton biomass (mg dry wt.·m^{-3}) 3.4
Secchi depth (m) 8.0

Depth (m)	1	3	5	20
pH		7.1		6.7
Dissolved inorganic carbon (mg C·L^{-1})		3.69		4.96
Dissolved kjeldahl nitrogen (µg N·L^{-1})	52	53	28	49
Ammonia (µg N·L^{-1})	10	9	9	10
Nitrate (µg N·L^{-1})	10	10	10	35
Total phosphorus (µg P·L^{-1})	<1	<1	1	<1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si·L^{-1})	900	910	880	1040
Bacteria numbers (x10^6·mL^{-1})	0.67	0.82	0.55	0.67
Chlorophyll > 0.8 µm (mg·m^{-3})	0.90	1.11	1.19	0.79
Chlorophyll 0.8-54 µm (mg·m^{-3})	0.65	0.86	0.93	0.61
Chlorophyll > 54 µm (mg·m^{-3})	0.25	0.25	0.26	0.18
Algal numbers (x10^8 ·m^{-3})	40		40	15
Algal volume (mm^3·m^{-3})	4793		3925	612

Table 55. Physical, chemical and biological data from Great Central Lake, Station 1, June 13, 1980.

Compensation depth (m) 15.2

Extinction coefficient (k_e) 0.29

Secchi depth (m) 7.8

Surface temperature (°C) 16.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 7.1

Depth (m)	1	3	5	20
pH		7.6		7.1
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.76		4.07
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	48	37	56	42
Ammonia (µg N$\cdot$L^{-1})	<4	<4	<4	<4
Nitrate (µg N$\cdot$L^{-1})	<1	<1	<1	39
Total phosphorus (µg P$\cdot$L^{-1})	1	3	2	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	1	<1	1	<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	710	700	700	1020
Bacteria numbers (x$10^6\cdot$mL^{-1})	0.82	0.61	0.94	0.56
Total chlorophyll (mg$\cdot$m^{-3})	1.28	1.46	1.46	1.22
Algal numbers (x$10^8\cdot$m^{-3})	166		167	
Algal volume (mm$^3\cdot$m^{-3})	4909		4926	

Table 56. Physical, chemical and biological data from Great Central Lake, Station 2, June 13, 1980.

Compensation depth (m) 14.1

Extinction coefficient (k_e) 0.31

Secchi depth (m) 7.0

Surface temperature (°C) 15.9

Zooplankton biomass (mg dry wt.·m^{-3}) 6.4

Depth (m)	1	3	5	20
pH		7.6		7.1
Dissolved inorganic carbon (mg C·L^{-1})		3.68		4.19
Dissolved kjeldahl nitrogen (µg N·L^{-1})	60	82	56	59
Ammonia (µg N·L^{-1})	<4	<4	<4	<4
Nitrate (µg N·L^{-1})	<1	<1	<1	33
Total phosphorus (µg P·L^{-1})	1	1	3	<1
Total dissolved phosphorus (µg P·L^{-1})	1	1	1	2
Soluble reactive silicon (µg Si·L^{-1})	680	680	700	970
Bacteria numbers ($\times 10^6$·mL^{-1})	1.06	0.89	0.81	0.67
Chlorophyll > 0.8 µm (mg·m^{-3})	1.50	1.96	1.96	2.86
Chlorophyll 0.8-54 µm (mg·m^{-3})	0.58	1.18	1.22	1.98
Chlorophyll > 54 µm (mg·m^{-3})	0.92	0.78	0.74	0.88
Algal numbers ($\times 10^8$·m^{-3})	81		88	35
Algal volume (mm^3·m^{-3})	9535		10396	1481

Table 57. Physical, chemical and biological data from Great Central Lake, Station 1, July 11, 1980.

Compensation depth (m) 15.4	Surface temperature (°C) 17.5
Extinction coefficient (k_e) 0.28	Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 9.6
Secchi depth (m) 7.5	

Depth (m)	1	3	5	20
pH		7.1		6.7
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.98		4.89
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})	72	65	75	66
Ammonia (μg N$\cdot$L^{-1})	6	6	8	10
Nitrate (μg N$\cdot$L^{-1})	<1	<1	<1	27
Total phosphorus (μg P$\cdot$L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (μg P$\cdot$L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (μg Si$\cdot$L^{-1})	1110	870	830	970
Bacteria numbers ($\times 10^6 \cdot$mL^{-1})	1.25	1.14	1.28	0.80
Total chlorophyll (mg$\cdot$m^{-3})	0.73	0.82	0.79	3.61
Algal numbers ($\times 10^8 \cdot$m^{-3})	111		102	
Algal volume (mm$^3\cdot$m^{-3})	2769		2889	

Table 58. Physical, chemical and biological data from Great Central Lake, Station 2, July 11, 1980.

Compensation depth (m) 13.6
Extinction coefficient (k_e) 0.32
Secchi depth (m) 8.0
Surface temperature (^{o}C) 17.6
Zooplankton biomass (mg dry wt.·m^{-3}) 5.3

Depth (m)	1	3	5	20
pH		7.0		6.6
Dissolved inorganic carbon (mg C·L^{-1})		4.00		5.65
Dissolved kjeldahl nitrogen (μg N·L^{-1})	65	46	27	102
Ammonia (μg N·L^{-1})	10	8	9	9
Nitrate (μg N·L^{-1})	<1	<1	<1	34
Total phosphorus (μg P·L^{-1})	<1	<1	1	<1
Total dissolved phosphorus (μg P·L^{-1})	<1	<1		<1
Soluble reactive silicon (μg Si·L^{-1})	1340	1350	1720	1300
Bacteria numbers (x10^{6}·mL^{-1})	1.26	1.37	1.41	0.86
Chlorophyll > 0.8 μm (mg·m^{-3})	1.40	1.88	1.83	3.05
Chlorophyll 0.8-54 μm (mg·m^{-3})	0.80	1.52	1.53	1.84
Chlorophyll > 54 μm (mg·m^{-3})	0.60	0.36	0.30	1.21
Algal numbers (x10^{8} ·m^{-3})	65		49	32
Algal volume (mm^{3}·m^{-3})	7883		5348	2407

Table 59. Physical, chemical and biological data from Great Central Lake, Station 1, August 8, 1980.

Compensation depth (m) 16.4
Extinction coefficient (k_e) 0.27
Secchi depth (m) 10.5
Surface temperature (^{o}C) 21.7
Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 14.1

Depth (m)	1	3	5	20
pH		6.9		6.7
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		4.25		4.89
Dissolved kjeldahl nitrogen ($\mu g\ N\cdot L^{-1}$)	68	61	58	65
Ammonia ($\mu g\ N\cdot L^{-1}$)	12	4	<4	6
Nitrate ($\mu g\ N\cdot L^{-1}$)	<1	<1	<1	17
Total phosphorus ($\mu g\ P\cdot L^{-1}$)	2	<1	1	<1
Total dissolved phosphorus ($\mu g\ P\cdot L^{-1}$)	<1	<1	<1	<1
Soluble reactive silicon ($\mu g\ Si\cdot L^{-1}$)	670	660	650	900
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	1.04	1.16	1.17	0.85
Total chlorophyll ($mg\cdot m^{-3}$)	0.56	0.68	0.88	4.46
Algal numbers ($\times 10^{8}\cdot m^{-3}$)	29		46	
Algal volume ($mm^{3}\cdot m^{-3}$)	161		362	

Table 60. Physical, chemical and biological data from Great Central Lake, Station 2, August 8, 1980.

Compensation depth (m) 15.4

Extinction coefficient (k_e) 0.28

Secchi depth (m) 10.0

Surface temperature (^{o}C) 21.7

Zooplankton biomass (mg dry wt.·m^{-3}) 13.2

Depth (m)	1	3	5	20
pH		6.9		6.6
Dissolved inorganic carbon (mg C·L^{-1})		4.30		5.12
Dissolved kjeldahl nitrogen (µg N·L^{-1})	64	57	56	54
Ammonia (µg N·L^{-1})	<4	5	6	<4
Nitrate (µg N·L^{-1})	<1	<1	<1	14
Total phosphorus (µg P·L^{-1})	<1	1	<1	<1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si·L^{-1})	650	650	650	890
Bacteria numbers (x10^6·mL^{-1})	1.00	1.03	1.06	0.76
Chlorophyll > 0.8 µm (mg·m^{-3})	0.76	1.10	1.04	4.16
Chlorophyll 0.8-54 µm (mg·m^{-3})	0.56	0.56	0.58	2.18
Chlorophyll > 54 µm (mg·m^{-3})	0.26	0.54	0.46	1.98
Algal numbers (x10^8 ·m^{-3})	43		56	55
Algal volume (mm^3·m^{-3})	640		1061	4639

Table 61. Physical, chemical and biological data from Great Central Lake, Station 1, September 12, 1980.

Compensation depth (m) ____

Extinction coefficient (k_e) ____

Secchi depth (m) 12.0

Surface temperature (^{o}C) 18.9

Zooplankton biomass (mg dry wt.·m^{-3}) 3.3

Depth (m)	1	3	5	20
pH		6.2		
Dissolved inorganic carbon (mg C·L^{-1})		7.21		
Dissolved kjeldahl nitrogen (µg N·L^{-1})	47	33	26	38
Ammonia (µg N·L^{-1})	4	6	<4	<4
Nitrate (µg N·L^{-1})	<1	<1	<1	18
Total phosphorus (µg P·L^{-1})	2	2	2	1
Total dissolved phosphorus (µg P·L^{-1})	1	1	1	<1
Soluble reactive silicon (µg Si·L^{-1})	2080	990	910	1290
Bacteria numbers (x10^6·mL^{-1})	1.25	1.32	1.49	0.97
Total chlorophyll (mg·m^{-3})	0.79	0.70	0.73	4.66
Algal numbers (x10^8·m^{-3})	30		26	
Algal volume (mm^3·m^{-3})	265		312	

Table 62. Physical, chemical and biological data from Great Central Lake, Station 2, September 12, 1980.

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 11.0

Surface temperature (°C) 19.0

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 4.2

Depth (m)	1	3	5	20
pH		6.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		7.90		
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	50	63	53	56
Ammonia (µg N$\cdot$L^{-1})	<4	7	<4	<4
Nitrate (µg N$\cdot$L^{-1})	<1	1	<1	13
Total phosphorus (µg P$\cdot$L^{-1})	2	2	3	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})	1	1	1	1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	1640	780	820	1000
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.75	1.77	1.68	0.82
Chlorophyll > 0.8 µm (mg$\cdot$m^{-3})	1.05	0.83	0.89	6.48
Chlorophyll 0.8-54 µm (mg$\cdot$m^{-3})	0.81	0.66	0.72	5.27
Chlorophyll > 54 µm (mg$\cdot$m^{-3})	0.24	0.17	0.17	1.21
Algal numbers (x10$^{8}\cdot$m^{-3})	14		27	86
Algal volume (mm$^{3}\cdot$m^{-3})	791		317	7102

Table 63. Physical, chemical and biological data from Great Central Lake, Station 1, October 10, 1980.

Compensation depth (m) 11.5

Surface temperature (°C) 16.3

Extinction coefficient (k_e) 0.37

Zooplankton biomass (mg dry wt.·m^{-3}) 5.1

Secchi depth (m) 12.5

Depth (m)	1	3	5	20
pH		7.0		
Dissolved inorganic carbon (mg C·L^{-1})		4.08		
Dissolved kjeldahl nitrogen (µg N·L^{-1})	47	35	70	64
Ammonia (µg N·L^{-1})	4	5	<4	4
Nitrate (µg N·L^{-1})	1	1	1	2
Total phosphorus (µg P·L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	1	<1
Soluble reactive silicon (µg Si·L^{-1})	1880	1560	1660	1310
Bacteria numbers (x10^6·mL^{-1})	0.92	0.68	1.04	1.17
Total chlorophyll (mg·m^{-3})	1.18	0.94	1.33	2.52
Algal numbers (x10^8·m^{-3})	34		60	
Algal volume (mm^3·m^{-3})	109		81	

Table 64. Physical, chemical and biological data from Great Central Lake, Station 2, October 10, 1980.

Compensation depth (m) 13.6

Extinction coefficient (k_e) 0.30

Secchi depth (m) 8.5

Surface temperature (°C) 16.2

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.0

Depth (m)	1	3	5	20
pH		7.1		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		3.92		
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	57	66	65	71
Ammonia (µg $N \cdot L^{-1}$)	<4	4	<4	4
Nitrate (µg $N \cdot L^{-1}$)	1	<1	<1	<1
Total phosphorus (µg $P \cdot L^{-1}$)	2	2	2	2
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	1	1	<1	<1
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	2320	2210	1680	1100
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.20	1.66	1.13	1.23
Chlorophyll > 0.8 µm ($mg \cdot m^{-3}$)	1.84	1.79	1.92	4.04
Chlorophyll 0.8-54 µm ($mg \cdot m^{-3}$)	1.22	1.19	1.38	2.28
Chlorophyll > 54 µm ($mg \cdot m^{-3}$)	0.62	0.60	0.54	1.76
Algal numbers ($\times 10^8 \cdot m^{-3}$)	9		19	50
Algal volume ($mm^3 \cdot m^{-3}$)	725		491	3868

Table 65. Physical, chemical and biological data from Great Central Lake, Station 1, November 22, 1980.

Compensation depth (m) 10.9

Extinction coefficient (k_e) 0.38

Secchi depth (m) 7.0

Surface temperature (^{o}C) 9.7

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.4

Depth (m)	1	3	5	20
pH		6.9		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		4.17		
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)	73	71	75	64
Ammonia (μg $N \cdot L^{-1}$)	10	7	7	6
Nitrate (μg $N \cdot L^{-1}$)	3	2	3	3
Total phosphorus (μg $P \cdot L^{-1}$)	2	1	1	<1
Total dissolved phosphorus (μg $P \cdot L^{-1}$)	<1	<1	1	1
Soluble reactive silicon (μg $Si \cdot L^{-1}$)	610	610	590	620
Bacteria numbers ($\times 10^{6} \cdot mL^{-1}$)	1.40	1.46	1.62	1.17
Total chlorophyll ($mg \cdot m^{-3}$)	2.66	1.44	3.17	2.98
Algal numbers ($\times 10^{8} \cdot m^{-3}$)	71		96	
Algal volume ($mm^{3} \cdot m^{-3}$)	1104		1211	

Table 66. Physical, chemical and biological data from Great Central Lake, Station 2, November 22, 1980.

Compensation depth (m) 11.6

Extinction coefficient (k_e) 0.37

Secchi depth (m) 5.5

Surface temperature (°C) 9.7

Zooplankton biomass (mg dry wt.·m^{-3}) 8.3

Depth (m)	1	3	5	20
pH		6.8		
Dissolved inorganic carbon (mg C·L^{-1})		4.34		
Dissolved kjeldahl nitrogen (µg N·L^{-1})	51	74	53	71
Ammonia (µg N·L^{-1})	5	11	5	8
Nitrate (µg N·L^{-1})	2	2	2	2
Total phosphorus (µg P·L^{-1})	1	1	1	1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	1	<1
Soluble reactive silicon (µg Si·L^{-1})	600	600	590	700
Bacteria numbers (x10^6·mL^{-1})	0.76		1.47	0.98
Chlorophyll > 0.8 µm (mg·m^{-3})	2.47	2.47	2.36	2.68
Chlorophyll 0.8-54 µm (mg·m^{-3})	1.91	1.88	1.99	1.43
Chlorophyll > 54 µm (mg·m^{-3})	0.56	0.59	0.37	1.25
Algal numbers (x10^8·m^{-3})	32		36	50
Algal volume (mm^3·m^{-3})	749		816	2305

Table 67. Physical, chemical and biological data from Henderson Lake, March 18, 1980.

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 7.0

Surface temperature (°C) 5.9

Zooplankton biomass (mg dry wt.·m^{-3}) 3.7

Depth (m)	1	3	5	20
pH		6.6		6.6
Dissolved inorganic carbon (mg C·L^{-1})		2.95		2.96
Dissolved kjeldahl nitrogen (µg N·L^{-1})				
Ammonia (µg N·L^{-1})	<4	9	<4	11
Nitrate (µg N·L^{-1})	30	31	31	36
Total phosphorus (µg P·L^{-1})	1	1	1	1
Total dissolved phosphorus (µg P·L^{-1})	1	<1	<1	2
Soluble reactive silicon (µg Si·L^{-1})	640	640	650	640
Bacteria numbers ($\times10^6$·mL^{-1})	0.91	0.91	0.91	0.93
Total chlorophyll (mg·m^{-3})	0.54	0.48	0.44	0.42
Algal numbers ($\times10^8$·m^{-3})	27		227	
Algal volume (mm^3·m^{-3})	134		338	

Table 68. Physical, chemical and biological data from Henderson Lake, April 15, 1980.

Compensation depth (m) 11.9

Extinction coefficient (k_e) 0.36

Secchi depth (m) 5.5

Surface temperature (^{o}C) 7.8

Zooplankton biomass (mg dry wt.·m^{-3}) 4.0

Depth (m)	1	3	5	20
pH		6.5		6.4
Dissolved inorganic carbon (mg C·L^{-1})		3.27		3.56
Dissolved kjeldahl nitrogen (μg N·L^{-1})	132	96	44	17
Ammonia (μg N·L^{-1})	132	96	44	17
Nitrate (μg N·L^{-1})	116	90	50	27
Total phosphorus (μg P·L^{-1})	24	18	9	1
Total dissolved phosphorus (μg P·L^{-1})	21	16	8	1
Soluble reactive silicon (μg Si·L^{-1})	650	630	640	620
Bacteria numbers (x10^{6}·mL^{-1})	1.30	1.06	0.93	1.09
Total chlorophyll (mg·m^{-3})	0.80	0.81	0.75	0.47
Algal numbers (x10^{8}·m^{-3})	104		15	
Algal volume (mm^{3}·m^{-3})	409		514	

Table 69. Physical, chemical and biological data from Henderson Lake, May 16, 1980.

Compensation depth (m) 9.4

Extinction coefficient (k_e) 0.47

Secchi depth (m) 4.5

Surface temperature (^{o}C) 12.8

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 21.7

Depth (m)	1	3	5	20
pH		6.7		6.6
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		2.68		2.90
Dissolved kjeldahl nitrogen (μg $N\cdot L^{-1}$)	100	69	85	83
Ammonia (μg $N\cdot L^{-1}$)	9	11	10	12
Nitrate (μg $N\cdot L^{-1}$)	<1	<1	<1	29
Total phosphorus (μg $P\cdot L^{-1}$)	1	2	2	<1
Total dissolved phosphorus (μg $P\cdot L^{-1}$)	<1	<1	<1	<1
Soluble reactive silicon (μg $Si\cdot L^{-1}$)	260	290	300	520
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	1.08	1.04	0.97	0.81
Total chlorophyll ($mg\cdot m^{-3}$)	3.20	3.51	2.48	0.43
Algal numbers ($\times 10^{8}\cdot m^{-3}$)	101		225	
Algal volume ($mm^{3}\cdot m^{-3}$)	2205		6242	

Table 70. Physical, chemical and biological data from Henderson Lake, June 13, 1980.

Compensation depth (m) 11.2

Extinction coefficient (k_e) 0.38

Secchi depth (m) 5.0

Surface temperature (°C) 14.6

Zooplankton biomass (mg dry wt.·m^{-3}) 25.1

Depth (m)	1	3	5	20
pH		7.3		7.0
Dissolved inorganic carbon (mg C·L^{-1})		2.25		2.46
Dissolved kjeldahl nitrogen (µg N·L^{-1})	66	107	87	51
Ammonia (µg N·L^{-1})	<4	<4	<4	<4
Nitrate (µg N·L^{-1})	<1	<1	<1	37
Total phosphorus (µg P·L^{-1})	3	3	2	1
Total dissolved phosphorus (µg P·L^{-1})	1	<1	1	<1
Soluble reactive silicon (µg Si·L^{-1})	50	50	50	600
Bacteria numbers ($\times 10^6$·mL^{-1})	1.67	1.84	1.72	0.90
Total chlorophyll (mg·m^{-3})	3.98	4.04	4.36	1.32
Algal numbers ($\times 10^8$·m^{-3})	106		105	
Algal volume (mm^3·m^{-3})	9203		3973	

Table 71. Physical, chemical and biological data from Henderson Lake, July 11, 1980.

Compensation depth (m) 9.9

Extinction coefficient (k_e) 0.45

Secchi depth (m) 6.0

Surface temperature (°C) 16.4

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 8.1

Depth (m)	1	3	5	20
pH		6.7		6.5
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.04		3.69
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	215	131	91	101
Ammonia (µg N$\cdot$L^{-1})	9	9	9	9
Nitrate (µg N$\cdot$L^{-1})	<1	<1	<1	34
Total phosphorus (µg P$\cdot$L^{-1})	1	<1	2	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	1	2	<1	<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	320	30	60	570
Bacteria numbers (x10$^6\cdot$mL^{-1})	1.96	1.96	1.99	0.89
Total chlorophyll (mg$\cdot$m^{-3})	2.45	3.28	2.27	1.06
Algal numbers (x10$^8\cdot$m^{-3})	230		187	
Algal volume (mm$^3\cdot$m^{-3})	1387		1681	

Table 72. Physical, chemical and biological data from Henderson Lake, August 8, 1980.

Compensation depth (m) 9.2

Extinction coefficient (k_e) 0.47

Secchi depth (m) 6.0

Surface temperature (°C) 19.9

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 7.1

Depth (m)	1	3	5	20
pH		6.8		6.4
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		2.80		3.65
Dissolved kjeldahl nitrogen ($\mu g\ N \cdot L^{-1}$)	88	98	80	101
Ammonia ($\mu g\ N \cdot L^{-1}$)	4	<4	<4	10
Nitrate ($\mu g\ N \cdot L^{-1}$)	<1	<1	<1	37
Total phosphorus ($\mu g\ P \cdot L^{-1}$)	2	3	2	2
Total dissolved phosphorus ($\mu g\ P \cdot L^{-1}$)	<1	2	1	<1
Soluble reactive silicon ($\mu g\ Si \cdot L^{-1}$)	110	110	110	450
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	3.09	2.87	2.68	1.17
Total chlorophyll ($mg \cdot m^{-3}$)	2.16	3.60	3.62	0.80
Algal numbers ($\times 10^8 \cdot m^{-3}$)	86		24	
Algal volume ($mm^3 \cdot m^{-3}$)	360		314	

Table 73. Physical, chemical and biological data from Henderson Lake, September 12, 1980.

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 6.5

Surface temperature (°C) 17.3

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 9.0

Depth (m)	1	3	5	20
pH		6.2		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		4.21		
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)	79	121	83	39
Ammonia (μg $N \cdot L^{-1}$)	5	7	9	9
Nitrate (μg $N \cdot L^{-1}$)	2	2	1	44
Total phosphorus (μg $P \cdot L^{-1}$)	5	5	5	3
Total dissolved phosphorus (μg $P \cdot L^{-1}$)	3	3	3	1
Soluble reactive silicon (μg $Si \cdot L^{-1}$)	130	320	480	650
Bacteria numbers ($\times 10^{6} \cdot mL^{-1}$)	2.05	1.98	2.35	1.56
Total chlorophyll ($mg \cdot m^{-3}$)	4.93	4.96	4.98	0.89
Algal numbers ($\times 10^{8} \cdot m^{-3}$)	81		86	
Algal volume ($mm^{3} \cdot m^{-3}$)	734		320	

Table 74. Physical, chemical and biological data from Henderson Lake, October 10, 1980.

Compensation depth (m) 6.8

Extinction coefficient (k_e) 0.65

Secchi depth (m) 5.0

Surface temperature (°C) 15.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 10.0

Depth (m)	1	3	5	20
pH		6.8		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		2.62		
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	60	70	20	63
Ammonia (µg N$\cdot$L^{-1})	5	6	4	7
Nitrate (µg N$\cdot$L^{-1})	1	1	1	23
Total phosphorus (µg P$\cdot$L^{-1})	1	1	2	1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	2	2	1	2
Soluble reactive silicon (µg Si$\cdot$L^{-1})	370	380	510	580
Bacteria numbers (x10$^6\cdot$mL^{-1})	2.36	1.89	1.68	1.29
Total chlorophyll (mg$\cdot$m^{-3})	7.48	8.14	6.98	2.98
Algal numbers (x10$^8\cdot$m^{-3})	121		64	
Algal volume (mm$^3\cdot$m^{-3})	1825		2946	

Table 75. Physical, chemical and biological data from Henderson Lake, November 22, 1980.

Compensation depth (m) 7.8

Extinction coefficient (k_e) 0.56

Secchi depth (m) 6.0

Surface temperature (°C) 10.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 11.3

Depth (m)	1	3	5	20
pH		6.6		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		2.92		
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	92	108	78	74
Ammonia (µg N$\cdot$L^{-1})	12	14	11	10
Nitrate (µg N$\cdot$L^{-1})	8	7	7	9
Total phosphorus (µg P$\cdot$L^{-1})	2	2	2	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})	1	1	1	1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	400	380	390	390
Bacteria numbers (x10$^6\cdot$mL^{-1})	1.38	1.40	1.08	1.19
Total chlorophyll (mg$\cdot$m^{-3})	3.58	2.95	3.60	4.69
Algal numbers (x10^{8}m^{-3})	83		25	
Algal volume (mm$^3\cdot$m^{-3})	814		418	

Table 76. Physical, chemical and biological data from Hobiton Lake, March 18, 1980.

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 7.0

Surface temperature (°C) 6.7

Zooplankton biomass (mg dry wt.·m^{-3}) 11.7

Depth (m)	1	3	5	20
pH		6.2		6.1
Dissolved inorganic carbon (mg C·L^{-1})		3.42		3.97
Dissolved kjeldahl nitrogen (μg N·L^{-1})				
Ammonia (μg N·L^{-1})	<4	6	16	<4
Nitrate (μg N·L^{-1})	31	31	31	31
Total phosphorus (μg P·L^{-1})	2	2	2	2
Total dissolved phosphorus (μg P·L^{-1})	1	1	1	1
Soluble reactive silicon (μg Si·L^{-1})	1360	1350	1340	1340
Bacteria numbers (x10^6·mL^{-1})	0.73	0.73	0.73	0.97
Total chlorophyll (mg·m^{-3})	0.92	0.78	0.76	0.62
Algal numbers (x10^8·m^{-3})	87		38	
Algal volume (mm^3·m^{-3})	176		58	

Table 77. Physical, chemical and biological data from Hobiton Lake, April 15, 1980.

Compensation depth (m) 8.6

Extinction coefficient (k_e) 0.50

Secchi depth (m) 6.0

Surface temperature (°C) 8.5

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 5.6

Depth (m)	1	3	5	20
pH		6.3		6.2
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		2.80		3.24
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)	64	35	14	15
Ammonia (μg $N \cdot L^{-1}$)	64	35	14	15
Nitrate (μg $N \cdot L^{-1}$)	15	16	15	24
Total phosphorus (μg $P \cdot L^{-1}$)	3	3	2	2
Total dissolved phosphorus (μg $P \cdot L^{-1}$)	2	2	2	1
Soluble reactive silicon (μg $Si \cdot L^{-1}$)	1260	1250	1270	1260
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.69	0.73	1.25	1.25
Total chlorophyll ($mg \cdot m^{-3}$)	1.76	1.98	1.80	0.43
Algal numbers ($\times 10^8 \cdot m^{-3}$)	42		39	
Algal volume ($mm^3 \cdot m^{-3}$)	179		129	

Table 78. Physical, chemical and biological data from Hobiton Lake, May 16, 1980.

Compensation depth (m) 8.3

Extinction coefficient (k_e) 0.52

Secchi depth (m) 6.0

Surface temperature (°C) 14.1

Zooplankton biomass (mg dry wt.·m^{-3}) 7.5

Depth (m)	1	3	5	20
pH		6.6		6.2
Dissolved inorganic carbon (mg C·L^{-1})		1.89		3.21
Dissolved kjeldahl nitrogen (μg N·L^{-1})	61	80	51	40
Ammonia (μg N·L^{-1})	10	10	11	9
Nitrate (μg N·L^{-1})	<1	3	2	31
Total phosphorus (μg P·L^{-1})	1	2	1	1
Total dissolved phosphorus (μg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (μg Si·L^{-1})	1080	1130	1120	1190
Bacteria numbers ($\times 10^6$·mL^{-1})	0.77	0.59	0.53	0.61
Total chlorophyll (mg·m^{-3})	1.08	1.12	1.10	0.18
Algal numbers ($\times 10^8$·m^{-3})	50		69	
Algal volume (mm^3·m^{-3})	120		184	

Table 79. Physical, chemical and biological data from Hobiton Lake, June 13, 1980.

Compensation depth (m) 8.7

Extinction coefficient (k_e) 0.49

Secchi depth (m) 6.5

Surface temperature (°C) 15.7

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 8.3

Depth (m)	1	3	5	20
pH		7.2		6.7
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		1.67		2.15
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)	52	63	38	26
Ammonia (µg $N\cdot L^{-1}$)	<4	<4	<4	<4
Nitrate (µg $N\cdot L^{-1}$)	<1	<1	<1	39
Total phosphorus (µg $P\cdot L^{-1}$)	2	2	2	1
Total dissolved phosphorus (µg $P\cdot L^{-1}$)	<1	1	1	1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)	1080	1080	1080	1180
Bacteria numbers ($x10^6\cdot mL^{-1}$)	1.88	1.90		5.98
Total chlorophyll ($mg\cdot m^{-3}$)	2.42	1.82	1.88	0.26
Algal numbers ($x10^8\cdot m^{-3}$)	42		54	
Algal volume ($mm^3\cdot m^{-3}$)	422		369	

Table 80. Physical, chemical and biological data from Hobiton Lake, July 11, 1980.

Compensation depth (m) 9.6

Surface temperature (^{o}C) 17.5

Extinction coefficient (k_e) 0.45

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 20.5

Secchi depth (m) 6.5

Depth (m)	1	3	5	20
pH		6.9		6.4
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		1.62		2.92
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	88	79	73	102
Ammonia (µg N$\cdot$L^{-1})	11	7	7	8
Nitrate (µg N$\cdot$L^{-1})	<1	<1	<1	37
Total phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	960	980	1000	1180
Bacteria numbers (x10^{6}$\cdot$mL^{-1})	2.27	1.93	2.07	1.19
Total chlorophyll (mg$\cdot$m^{-3})	2.55	2.63	2.60	0.35
Algal numbers (x10^{8}$\cdot$m^{-3})	36		64	
Algal volume (mm^{3}$\cdot$m^{-3})	710		1192	

Table 81. Physical, chemical and biological data from Hobiton Lake, August 8, 1980.

Compensation depth (m) 7.1

Extinction coefficient (k_e) 0.62

Secchi depth (m) 4.5

Surface temperature (^{o}C) 20.5

Zooplankton biomass (mg dry wt.·m^{-3}) 4.8

Depth (m)	1	3	5	20
pH		6.9		6.5
Dissolved inorganic carbon (mg C·L^{-1})		1.91		2.46
Dissolved kjeldahl nitrogen (µg N·L^{-1})	48	61	43	50
Ammonia (µg N·L^{-1})	22	<4	5	7
Nitrate (µg N·L^{-1})	<1	<1	<1	41
Total phosphorus (µg P·L^{-1})	3	4	<1	<1
Total dissolved phosphorus (µg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si·L^{-1})	650	660	660	1220
Bacteria numbers (x10^6·mL^{-1})	2.01	1.87	2.07	0.74
Total chlorophyll (mg·m^{-3})	2.24	2.38	2.80	0.44
Algal numbers (x10^8·m^{-3})	21		38	
Algal volume (mm^3·m^{-3})	2799		2986	

Table 82. Physical, chemical and biological data from Hobiton Lake, September 12,1980

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 6.0

Surface temperature (°C) 17.3

Zooplankton biomass (mg dry wt.·m^{-3}) 7.4

Depth (m)	1	3	5	20
pH		5.9		
Dissolved inorganic carbon (mg C·L^{-1})		3.37		
Dissolved kjeldahl nitrogen (μg N·L^{-1})	75	76	5	48
Ammonia (μg N·L^{-1})	4	4	5	<4
Nitrate (μg N·L^{-1})	<1	<1	<1	40
Total phosphorus (μg P·L^{-1})	3	4	4	2
Total dissolved phosphorus (μg P·L^{-1})	2	2	2	1
Soluble reactive silicon (μg Si·L^{-1})	680	790	680	1230
Bacteria numbers ($\times 10^6$·mL^{-1})	1.31	1.66	2.18	0.71
Total chlorophyll (mg·m^{-3})	2.28	2.30	2.52	0.86
Algal numbers ($\times 10^8$·m^{-3})	46		70	
Algal volume (mm^3·m^{-3})	810		991	

Table 83. Physical, chemical and biological data from Hobiton Lake, October 10, 1980.

Compensation depth (m) 5.9

Extinction coefficient (k_e) 0.79

Secchi depth (m) 4.0

Surface temperature (°C) 14.5

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.8

Depth (m)	1	3	5	20
pH		6.9		
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		2.00		
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)	54	55	41	41
Ammonia (µg $N \cdot L^{-1}$)	5	5	5	4
Nitrate (µg $N \cdot L^{-1}$)	1	1	23	40
Total phosphorus (µg $P \cdot L^{-1}$)	2	2	2	<1
Total dissolved phosphorus (µg $P \cdot L^{-1}$)	1	1	2	<1
Soluble reactive silicon (µg $Si \cdot L^{-1}$)	930	910	1020	1220
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.56	1.22	1.66	1.01
Total chlorophyll ($mg \cdot m^{-3}$)	3.12	3.33	3.25	1.60
Algal numbers ($\times 10^8 \cdot m^{-3}$)	46		19	
Algal volume ($mm^3 \cdot m^{-3}$)	537		485	

Table 84. Physical, chemical and biological data from Hobiton Lake, November 22, 1980.

Compensation depth (m) 7.1

Extinction coefficient (k_e) 0.60

Secchi depth (m) ______

Surface temperature (°C) 9.2

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 9.6

Depth (m)	1	3	5	20
pH		6.7		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		2.12		
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)	51	61	82	71
Ammonia (µg $N\cdot L^{-1}$)	10	11	12	17
Nitrate (µg $N\cdot L^{-1}$)	11	10	10	25
Total phosphorus (µg $P\cdot L^{-1}$)	2	2	2	1
Total dissolved phosphorus (µg $P\cdot L^{-1}$)	1	2	1	2
Soluble reactive silicon (µg $Si\cdot L^{-1}$)	1080	1080	1080	1150
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	0.80	1.35	1.52	0.94
Total chlorophyll ($mg\cdot m^{-3}$)	1.23	1.04	0.93	0.56
Algal numbers ($\times 10^8\cdot m^{-3}$)	5		15	
Algal volume ($mm^3\cdot m^{-3}$)	239		251	

Table 85. Physical, chemical and biological data from Ian Lake, Station 1, May 3, 1980.

Compensation depth (m) 3.1

Extinction coefficient (k_e) 1.41

Secchi depth (m) 3.5

Surface temperature (°C) 6.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 16.4

Depth (m)	1	3	5	20
pH	6.2		6.2	
Dissolved inorganic carbon (mg C$\cdot$L^{-1})	3.21		3.29	
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})	66	62	62	11
Ammonia (μg N$\cdot$L^{-1})	9	11	8	10
Nitrate (μg N$\cdot$L^{-1})	33	33	33	35
Total phosphorus (μg P$\cdot$L^{-1})	2	1	1	3
Total dissolved phosphorus (μg P$\cdot$L^{-1})	2	<1	<1	3
Soluble reactive silicon (μg Si$\cdot$L^{-1})	1380	1350	1260	1140
Total dissolved solids (mg$\cdot$L^{-1})			40	
Total chlorophyll (mg$\cdot$m^{-3})	0.33	0.25	0.25	0.14
Algal numbers (x10$^{8}\cdot$m^{-3})	15		16	
Algal volume (mm$^{3}\cdot$m^{-3})	24		22	

Table 86. Physical, chemical and biological data from Ian Lake, Station 2, May 3, 1980.

Compensation depth (m) 3.7

Extinction coefficient (k_e) 1.15

Secchi depth (m) 3.5

Surface temperature (°C) 6.5

Zooplankton biomass (mg dry wt.·m^{-3}) 2.6

Depth (m)	1	3	5	20
pH	6.4		6.4	
Dissolved inorganic carbon (mg C·L^{-1})	2.77		4.11	
Dissolved kjeldahl nitrogen (μg N·L^{-1})	76	72	86	124
Ammonia (μg N·L^{-1})	6	7	16	7
Nitrate (μg N·L^{-1})	29	29	30	31
Total phosphorus (μg P·L^{-1})	2	1	3	2
Total dissolved phosphorus (μg P·L^{-1})	1	<1	<1	<1
Soluble reactive silicon (μg Si·L^{-1})	1440	1450	1410	1530
Total dissolved solids (mg·L^{-1})			36	
Total chlorophyll (mg·m^{-3})	0.41	0.55	0.39	0.22
Algal numbers ($\times 10^8$·m^{-3})	19		15	
Algal volume (mm^3·m^{-3})	87		79	

Table 87. Physical, chemical and biological data from Ian Lake, Station 1, June 24, 1980.

Compensation depth (m) 4.7

Extinction coefficient (k_e) 0.92

Secchi depth (m) 5.0

Surface temperature (°C) 15.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 24.7

Depth (m)	1	3	5	20
pH	6.1		6.1	
Dissolved inorganic carbon (mg C$\cdot$L^{-1})	2.81		3.52	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	71	66	73	70
Ammonia (µg N$\cdot$L^{-1})	5	4	10	4
Nitrate (µg N$\cdot$L^{-1})	15	18	15	29
Total phosphorus (µg P$\cdot$L^{-1})	2	2	2	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	1880	1950	2040	2030
Total dissolved solids (mg$\cdot$L^{-1})			34	
Total chlorophyll (mg$\cdot$m^{-3})	3.50	3.14	2.34	0.30
Algal numbers (x10$^{8}\cdot$m^{-3})	16		28	
Algal volume (mm$^{3}\cdot$m^{-3})	160		605	

Table 88. Physical, chemical and biological data from Ian Lake, Station 2, June 24, 1980.

Compensation depth (m) 3.7		Surface temperature (°C) 16.4		
Extinction coefficient (k_e) 1.16		Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 20.1		
Secchi depth (m) 4.0				

Depth (m)	1	3	5	20
pH	5.8		5.6	
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)	2.66			
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)	62	77	56	56
Ammonia (µg $N\cdot L^{-1}$)	7	8	5	5
Nitrate (µg $N\cdot L^{-1}$)	17	17	18	28
Total phosphorus (µg $P\cdot L^{-1}$)	2	2	2	2
Total dissolved phosphorus (µg $P\cdot L^{-1}$)	<1	<1	<1	<1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)	1700	1720	1780	1810
Total dissolved solids ($mg\cdot L^{-1}$)			37	
Total chlorophyll ($mg\cdot m^{-3}$)	3.92	3.54	2.44	0.28
Algal numbers ($x10^8\cdot m^{-3}$)	52		175	
Algal volume ($mm^3\cdot m^{-3}$)	472		737	

Table 89. Physical, chemical and biological data from Ian Lake, Station 1, September 24, 1980.

Compensation depth (m) 3.7

Extinction coefficient (k_e) 1.18

Secchi depth (m) 4.0

Surface temperature (°C) 14.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 42.4

Depth (m)	1	3	5	20
pH		6.6		6.3
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		1.75		2.29
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	120	142	156	100
Ammonia (µg N$\cdot$L^{-1})	<4	<4	7	7
Nitrate (µg N$\cdot$L^{-1})	22	22	22	41
Total phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	2	1	1	1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	1680	1670	1690	1660
Total dissolved solids (mg$\cdot$L^{-1})			42	
Total chlorophyll (mg$\cdot$m^{-3})	3.68	2.42	2.30	0.26
Algal numbers (x10$^{8}\cdot$m^{-3})	36		31	
Algal volume (mm$^{3}\cdot$m^{-3})	294		236	

Table 90. Physical, chemical and biological data from Ian Lake, Station 2, September 24, 1980.

Compensation depth (m) 4.2

Extinction coefficient (k_e) 1.07

Secchi depth (m) 3.0

Surface temperature (°C) 14.4

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 16.3

Depth (m)	1	3	5	20
pH		6.5		6.2
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		1.54		1.75
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	111	143	88	88
Ammonia (µg N$\cdot$L^{-1})	<4	6	<4	<4
Nitrate (µg N$\cdot$L^{-1})	25	25	25	40
Total phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	<1	1	<1	1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	1560	1560	1570	1560
Total dissolved solids (mg$\cdot$L^{-1})			48	
Total chlorophyll (mg$\cdot$m^{-3})	2.80	2.60	1.96	0.36
Algal numbers (x10$^{8}\cdot$m^{-3})	49		34	
Algal volume (mm$^{3}\cdot$m^{-3})	254		233	

Table 91. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, March 19, 1980.

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 8.5

Surface temperature (°C) 6.7

Zooplankton biomass 2.2 (mg dry wt.$\cdot m^{-3}$)

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.18[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH			6.7				6.7	
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)			4.73				4.49	
Dissolved organic carbon (mg $C \cdot L^{-1}$)		2.0	2.7	2.7			2.5	
Particulate carbon (μg $C \cdot L^{-1}$)		100	130	92			97	
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)								
Particulate nitrogen (μg $N \cdot L^{-1}$)		17	16	16			21	
Ammonia (μg $N \cdot L^{-1}$)		<4	<4	<4			<4	
Nitrate (μg $N \cdot L^{-1}$)		43	45	44			47	
Total phosphorus (μg $P \cdot L^{-1}$)		1	2	<1			<1	
Total dissolved phosphorus (μg $P \cdot L^{-1}$)		3	1	<1			1	
Soluble reactive silicon (μg $Si \cdot L^{-1}$)		940	950	950			980	
Total dissolved solids (mg$\cdot L^{-1}$)		27					27	
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.21	1.22	1.12	1.15	1.14	1.06	1.04	1.12
Glucose turnover time (h)	242	1284	608	285	279	522	1961	773
Dark bottle glucose turnover time (h)		588	1701	4083				6915
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	0.12	0.36	0.24	0.04	0.00	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.14	0.52	0.48			0.24	
Algal numbers ($\times 10^8 \cdot m^{-3}$)[b]		117		65				
Algal volume ($mm^3 \cdot m^{-3}$)[b]		62		34				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 92. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, March 19, 1980.

Compensation depth (m) 8.7

Extinction coefficient (k_e) 0.50

Secchi depth (m) 6.0

Surface temperature (°C) 7.2

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.8

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.66[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH			6.6				6.7	
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)			3.74				3.10	
Dissolved organic carbon (mg $C \cdot L^{-1}$)		2.4	2.2	2.1			2.1	
Particulate carbon (µg $C \cdot L^{-1}$)		128	107	110			76	
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)								
Particulate nitrogen (µg $N \cdot L^{-1}$)		22	20	21			16	
Ammonia (µg $N \cdot L^{-1}$)		5	5	<4			4	
Nitrate (µg $N \cdot L^{-1}$)		32	33	33			34	
Total phosphorus (µg $P \cdot L^{-1}$)		1	1	2			2	
Total dissolved phosphorus (µg $P \cdot L^{-1}$)		1	2	2			2	
Soluble reactive silicon (µg $Si \cdot L^{-1}$)		880	890	880			890	
Total dissolved solids (mg$\cdot L^{-1}$)		24					26	
Bacteria numbers ($x10^6 \cdot mL^{-1}$)	0.94	0.90	0.99	1.21	1.22	1.17	1.06	1.21
Glucose turnover time (h)	765	229	356	324	718	266	921	1517
Dark bottle glucose turnover time (h)		228	381	114				596
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	0.38	0.40	0.29	0.20	0.01	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		0.58	0.62	0.56			0.44	
Algal numbers ($x10^8 \cdot m^{-3}$)		65		52				
Algal volume ($mm^3 \cdot m^{-3}$)		74		74				

[a] during incubation period

Table 93. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, April 16, 1980.

Compensation depth (m) 9.8

Extinction coefficient (k_e) 0.42

Secchi depth (m) 6.0

Surface temperature (°C) 9.2

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.3

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 4.77 [a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH			6.8		6.7			
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)			4.32		4.80			
Dissolved organic carbon (mg $C \cdot L^{-1}$)		1.5	1.6	1.6			1.8	
Particulate carbon (µg $C \cdot L^{-1}$)		166	115	56			35	
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)		29	14	15			31	
Particulate nitrogen (µg $N \cdot L^{-1}$)		23	23	14			11	
Ammonia (µg $N \cdot L^{-1}$)		14	14	15			15	
Nitrate (µg $N \cdot L^{-1}$)		24	34	32			32	
Total phosphorus (µg $P \cdot L^{-1}$)		4	2	2			1	
Total dissolved phosphorus (µg $P \cdot L^{-1}$)		1	2	2			1	
Soluble reactive silicon (µg $Si \cdot L^{-1}$)		920	910	925			910	
Total dissolved solids (mg$\cdot L^{-1}$)		24					23	
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.37	1.37	1.15	0.73			1.17	
Glucose turnover time (h)	214	310	124	101	114	134	142	770
Dark bottle glucose turnover time (h)		134	573	196			193	
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	1.07	0.92	0.78	0.15	0.08	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.80	1.47	0.90			0.26	
Algal numbers ($\times 10^8 \cdot m^{-3}$)[b]		408		398				
Algal volume ($mm^3 \cdot m^{-3}$)[b]		269		166				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 94. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, April 16, 1980.

Compensation depth (m) 7.7
Extinction coefficient (k_e) 0.57
Secchi depth (m) 6.0
Surface temperature (°C) 8.3
Zooplankton biomass (mg dry wt.·m^{-3}) 3.0
Einsteins·m^{-2}·h^{-1} 4.58 [a]
Einsteins·m^{-2}·d^{-1} _____
Daily primary production (mg C·m^{-2}·d^{-1}) _____

Depth (m)	0	1	3	5	7.5	10	20	30
pH			6.8		6.7			
Dissolved inorganic carbon (mg C·L^{-1})			3.09		3.33			
Dissolved organic carbon (mg C·L^{-1})		1.5	1.6	1.8				
Particulate carbon (μg C·L^{-1})		114	80	408			66	
Dissolved kjeldahl nitrogen (μg N·L^{-1})		17	18	43			15	
Particulate nitrogen (μg N·L^{-1})		18	16	42			15	
Ammonia (μg N·L^{-1})		17	18	17			15	
Nitrate (μg N·L^{-1})		27	27	26			26	
Total phosphorus (μg P·L^{-1})		3	3	3			1	
Total dissolved phosphorus (μg P·L^{-1})		1	2	2			1	
Soluble reactive silicon (μg Si·L^{-1})		850	840	850			850	
Total dissolved solids (mg·L^{-1})		20					19	
Bacteria numbers (x10^6·mL^{-1})	1.14	1.46	0.97	0.83			1.55	
Glucose turnover time (h)	142	381	154	250	102	160	356	430
Dark bottle glucose turnover time (h)		295	238	165			100	
Total primary production (mg C·m^{-3}·h^{-1})	0.83	0.74	0.76	0.60	0.04	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		1.24	1.27	1.26			0.51	
Algal numbers (x10^8·m^{-3})		72		61				
Algal volume (mm^3·m^{-3})		188		157				

[a] during incubation period

Table 95. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, May 15, 1980.

Compensation depth (m) 8.9

Extinction coefficient (k_e) 0.49

Secchi depth (m) 5.0

Surface temperature (°C) 14.6

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 4.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 4.90 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} ______

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.3			7.0			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.71			3.65			
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.5	1.4	2.9			1.3	
Particulate carbon (μg C$\cdot$L^{-1})		357	319	290			123	
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		58	65	59			36	
Particulate nitrogen (μg N$\cdot$L^{-1})		58	59	57			16	
Ammonia (μg N$\cdot$L^{-1})		11	11	11			11	
Nitrate (μg N$\cdot$L^{-1})		<1	<1	1			45	
Total phosphorus (μg P$\cdot$L^{-1})		1	2	1			<1	
Total dissolved phosphorus (μg P$\cdot$L^{-1})		<1	<1	<1			<1	
Soluble reactive silicon (μg Si$\cdot$L^{-1})		690	680	680			810	
Total dissolved solids (mg$\cdot$L^{-1})		26					27	
Bacteria numbers (x10$^6\cdot$mL^{-1})	2.08	1.24		1.16	1.09	1.27	1.09	0.77
Glucose turnover time (h)	68	58	75	127	113	110	3026	2276
Dark bottle glucose turnover time (h)		143	79	296			384	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.04	1.91	2.68	1.65	0.68	0.01	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		1.76	1.90	1.96			0.18	
Algal numbers (x10$^8\cdot$m^{-3})[b]		1414		1377				
Algal volume (mm$^3\cdot$m^{-3})[b]		2685		1902				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 96. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, May 15, 1980.

Compensation depth (m) 8.3

Extinction coefficient (k_e) 0.53

Secchi depth (m) 5.0

Surface temperature (°C) 13.7

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 3.2

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 5.18 [a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.0			6.9			
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)		2.93			3.05			
Dissolved organic carbon (mg C$\cdot L^{-1}$)		1.1	1.2	1.6			1.3	
Particulate carbon (µg C$\cdot L^{-1}$)		214	199	207			125	
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		51	86	81			64	
Particulate nitrogen (µg N$\cdot L^{-1}$)		31	33	30			13	
Ammonia (µg N$\cdot L^{-1}$)		11	11	11			12	
Nitrate (µg N$\cdot L^{-1}$)		13	13	13			30	
Total phosphorus (µg P$\cdot L^{-1}$)		<1	1	1			1	
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1	<1	<1			<1	
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		690	710	670			660	
Total dissolved solids (mg$\cdot L^{-1}$)		23					23	
Bacteria numbers (x$10^6 \cdot mL^{-1}$)	1.02	1.08		1.04	0.96	1.15	1.04	0.91
Glucose turnover time (h)	146	117	107	150	166	123	235	334
Dark bottle glucose turnover time (h)		199	152	124			168	
Total primary production (mg C$\cdot m^{-3} \cdot h^{-1}$)	1.14	1.28	1.15	0.83	0.17	0.02	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.45	1.27	1.30			0.21	
Algal numbers (x$10^8 \cdot m^{-3}$)		64		60				
Algal volume ($mm^3 \cdot m^{-3}$)		364		323				

[a] during incubation period

Table 97. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, June 12, 1980.

Compensation depth (m) 9.3

Extinction coefficient (k_e) 0.48

Secchi depth (m) 6.0

Surface temperature (°C) 15.8

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 7.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 5.74[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 53.1

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 124

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.7			7.3			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.67			4.05			
Dissolved organic carbon (mg C$\cdot$L^{-1})			1.0	0.9			1.1	
Particulate carbon (µg C$\cdot$L^{-1})		349	350	351			106	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		44	41	74			29	
Particulate nitrogen (µg N$\cdot$L^{-1})		60	74	78			24	
Ammonia (µg N$\cdot$L^{-1})		<4	<4	<4			<4	
Nitrate (µg N$\cdot$L^{-1})		<1	<1	<1			38	
Total phosphorus (µg P$\cdot$L^{-1})		3	3	3			1	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		1	<1	1			1	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		660	670	680			870	
Total dissolved solids (mg$\cdot$L^{-1})		26					25	
Bacteria numbers (x10$^6\cdot$mL^{-1})	2.51	1.77	1.83		1.58	1.13	0.74	0.68
Glucose turnover time (h)	40	20	65	32	27	100	178	1042
Dark bottle glucose turnover time (h)		40	34	20			279	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.82	1.59	1.79	1.10	0.60	0.28	0.05	0.00
Total chlorophyll (mg$\cdot$m^{-3})		3.14	3.30	3.22			0.32	
Algal numbers (x10$^8\cdot$m^{-3})[b]		758		50[c]				
Algal volume (mm$^3\cdot$m^{-3})[b]		1752		1152				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

[c] no count for ultraphytoplankton

Table 98. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, June 12, 1980.

Compensation depth (m) 8.3	Surface temperature (°C) 16.2	Einsteins·m^{-2}·h^{-1} 5.41 [a]
Extinction coefficient (k_e) 0.59	Zooplankton biomass 18.4 (mg dry wt.·m^{-3})	Einsteins·m^{-2}·d^{-1} 53.1
Secchi depth (m) 5.5		Daily primary production 110 (mg C·m^{-2}·d^{-1})

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.4			7.4			
Dissolved inorganic carbon (mg C·L^{-1})		3.26			3.43			
Dissolved organic carbon (mg C·L^{-1})		1.1	1.3	1.3			1.5	
Particulate carbon (µg C·L^{-1})		260	261	243			136	
Dissolved kjeldahl nitrogen (µg N·L^{-1})		32	81	43			36	
Particulate nitrogen (µg N·L^{-1})		66	64	51			30	
Ammonia (µg N·L^{-1})		4	<4	<4			<4	
Nitrate (µg N·L^{-1})		6	5	5			32	
Total phosphorus (µg P·L^{-1})		2	2	2			1	
Total dissolved phosphorus (µg P·L^{-1})		<1	<1	<1			<1	
Soluble reactive silicon (µg Si·L^{-1})		720	750	750			780	
Total dissolved solids (mg·L^{-1})		23					21	
Bacteria numbers (x10^6·mL^{-1})	1.86	1.66	1.58	1.28	1.35	0.89	0.94	0.84
Glucose turnover time (h)	142	37	37	38	61	61	740	3438
Dark bottle glucose turnover time (h)		56	39	44			297	
Total primary production (mg C·m^{-3}·h^{-1})	3.72	2.21	1.69	0.72	0.19	0.05	0.05	0.00
Total chlorophyll (mg·m^{-3})		2.12	2.08	2.24			0.32	
Algal numbers (x10^8·m^{-3})		114		121				
Algal volume (mm^3·m^{-3})		484		345				

[a] during incubation period

Table 99. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, July 10, 1980.

Compensation depth (m) 9.6

Extinction coefficient (k_e) 0.45

Secchi depth (m) 6.0

Surface temperature (°C) 17.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 13.3

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.99 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 17.8

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 232

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.0			6.8			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		4.76			4.92			
Dissolved organic carbon (mg C$\cdot$L^{-1})		3.7	3.6	3.7			4.1	
Particulate carbon (µg C$\cdot$L^{-1})		451	483	434			285	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		75	136	184			86	
Particulate nitrogen (µg N$\cdot$L^{-1})		78	79	80			44	
Ammonia (µg N$\cdot$L^{-1})		11	6	8			7	
Nitrate (µg N$\cdot$L^{-1})		<1	<1	<1			49	
Total phosphorus (µg P$\cdot$L^{-1})		<1	<1	<1			<1	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1	<1	<1			<1	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		730	630	890			1020	
Total dissolved solids (mg$\cdot$L^{-1})		26					27	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.83	2.04	2.20	2.26	2.15	2.23	0.80	0.71
Glucose turnover time (h)	29	16	33	15	29	27	475	3244
Dark bottle glucose turnover time (h)		65	51	150			10000	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	5.27	3.59	1.46	0.57	0.33	0.00	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		3.28	3.02	2.40			1.78	
Algal numbers (x10$^{8}\cdot$m^{-3})[b]		975		599				
Algal volume (mm$^{3}\cdot$m^{-3})[b]		919		790				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 100. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, July 10, 1980.

Compensation depth (m) 8.3

Extinction coefficient (k_e) 0.54

Secchi depth (m) 6.0

Surface temperature (°C) 17.5

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 9.4

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.13[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 17.8

Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) 128

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.0			6.9			
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)		3.38			3.52			
Dissolved organic carbon (mg C$\cdot L^{-1}$)		3.4	3.6	3.9			4.2	
Particulate carbon (µg C$\cdot L^{-1}$)		354	404	644			265	
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		96	111	99			128	
Particulate nitrogen (µg N$\cdot L^{-1}$)		60	66	88			44	
Ammonia (µg N$\cdot L^{-1}$)		8	6	10			16	
Nitrate (µg N$\cdot L^{-1}$)		<1	<1	<1			23	
Total phosphorus (µg P$\cdot L^{-1}$)		<1	<1	<1			<1	
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1	<1	<1			<1	
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		700	640	1130			990	
Total dissolved solids (mg$\cdot L^{-1}$)		25					23	
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.95	1.16	1.16	1.06	1.25	0.97	1.00	1.03
Glucose turnover time (h)	45	24	33	25	50	64	519	106
Dark bottle glucose turnover time (h)		205	155	129			5469	
Total primary production (mg C$\cdot m^{-3} \cdot h^{-1}$)	3.46	2.58	0.84	0.30	0.13	0.04	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.56	2.50	1.65			0.30	
Algal numbers ($\times 10^8 \cdot m^{-3}$)		52		107				
Algal volume ($mm^3 \cdot m^{-3}$)		393		240				

[a] during incubation period

Table 101. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, August 7, 1980.

Compensation depth (m) 9.2

Extinction coefficient (k_e) 0.48

Secchi depth (m) 6.5

Surface temperature (°C) 20.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 24.9

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 5.87[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 46.1

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 242

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.9			6.4			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		4.85			6.76			
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.4	4.0	4.3			3.2	
Particulate carbon (µg C$\cdot$L^{-1})		352	450	320			276	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		67	90	88			48	
Particulate nitrogen (µg N$\cdot$L^{-1})		51	64	48			36	
Ammonia (µg N$\cdot$L^{-1})		4	<4	6			5	
Nitrate (µg N$\cdot$L^{-1})		<1	<1	<1			52	
Total phosphorus (µg P$\cdot$L^{-1})		1	1	<1			1	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1	1	1			<1	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		640	640	640			860	
Total dissolved solids (mg$\cdot$L^{-1})			29	27				
Bacteria numbers (x10$^6\cdot$mL^{-1})	2.51	2.47	2.48	2.39	1.78	1.72	1.08	1.08
Glucose turnover time (h)	26	20	25	19	36	25	87	242
Dark bottle glucose turnover time (h)		16	53	39			164	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	3.20	3.90	3.92	2.88	1.34	1.02	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		1.90	1.96	1.66			0.74	
Algal numbers (x10$^8\cdot$m^{-3})[b]		734		614				
Algal volume (mm$^3\cdot$m^{-3})[b]		446		368				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 102. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, August 7, 1980.

Compensation depth (m) 10.3

Extinction coefficient (k_e) 0.42

Secchi depth (m) 5.0

Surface temperature (°C) 20.7

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.7

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 6.09[a]

Einsteins$\cdot m^{-2}\cdot d^{-1}$ 46.1

Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 119

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.4			6.5			
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)		5.77			4.74			
Dissolved organic carbon (mg C$\cdot L^{-1}$)			4.1	4.2			3.8	
Particulate carbon (μg C$\cdot L^{-1}$)		457	456	445			219	
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		72	91	77			67	
Particulate nitrogen (μg N$\cdot L^{-1}$)		55	61	62			28	
Ammonia (μg N$\cdot L^{-1}$)		9	<4	<4			11	
Nitrate (μg N$\cdot L^{-1}$)		<1	<1	<1			37	
Total phosphorus (μg P$\cdot L^{-1}$)		2	2	<1			2	
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		<1	1	<1			<1	
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		690	720	710			790	
Total dissolved solids (mg$\cdot L^{-1}$)			25	24				
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	2.70	2.41	2.30	2.45	2.24	1.34	1.16	1.03
Glucose turnover time (h)	39	13	9	24	12	37	36	985
Dark bottle glucose turnover time (h)		17	16	26				
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	2.82	2.95	2.36	1.31	0.36	0.22	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.24	2.44	2.08			0.32	
Algal numbers ($\times 10^8\cdot m^{-3}$)		78		80				
Algal volume ($mm^3\cdot m^{-3}$)		925		933				

[a] during incubation period

Table 103. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, September 11, 1980

Compensation depth (m) ______

Extinction coefficient (k_e) ______

Secchi depth (m) 5.0

Surface temperature (°C) 17.9

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 12.8

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 3.49 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 29.3

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 289

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.5			6.7			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.83			4.72			
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.6	2.7	2.6			2.1	
Particulate carbon (μg C$\cdot$L^{-1})		477	427	399			138	
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		67	70	65			43	
Particulate nitrogen (μg N$\cdot$L^{-1})		85	74	63			21	
Ammonia (μg N$\cdot$L^{-1})		<4	<4	<4			<4	
Nitrate (μg N$\cdot$L^{-1})		<1	<1	2			54	
Total phosphorus (μg P$\cdot$L^{-1})		8	7	5			3	
Total dissolved phosphorus (μg P$\cdot$L^{-1})		5	5	5			4	
Soluble reactive silicon (μg Si$\cdot$L^{-1})		690	1100	1260			1210	
Total dissolved solids (mg$\cdot$L^{-1})		30					29	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.62	1.63	2.42	1.77	1.78	1.72	1.10	0.98
Glucose turnover time (h)	32	18	28	14	30	23	139	2053
Dark bottle glucose turnover time (h)		71	46	59			1106	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	8.70	8.72	4.97	2.38	0.59	0.06	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		6.30	5.64	4.77			0.58	
Algal numbers (x10$^{8}\cdot$m^{-3}) [b]		5077		3201				
Algal volume (mm$^{3}\cdot$m^{-3}) [b]		1327		874				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 104. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, September 11, 1980.

Compensation depth (m) ______	Surface temperature (^{o}C) 17.7	Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.63 [a]
Extinction coefficient (k_e) ______	Zooplankton biomass 2.4 (mg dry wt.$\cdot m^{-3}$)	Einsteins$\cdot m^{-2}\cdot d^{-1}$ 29.3
Secchi depth (m) 5.5		Daily primary production 169 (mg C$\cdot m^{-2}\cdot d^{-1}$)

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.6			6.3			
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)		4.05			5.29			
Dissolved organic carbon (mg C$\cdot L^{-1}$)		2.4	2.6	2.4			2.8	
Particulate carbon (μg C$\cdot L^{-1}$)		225	232	242			131	
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		56	53	49			43	
Particulate nitrogen (μg N$\cdot L^{-1}$)		41	43	46			16	
Ammonia (μg N$\cdot L^{-1}$)		<4	<4	<4			<4	
Nitrate (μg N$\cdot L^{-1}$)		5	1	<1			38	
Total phosphorus (μg P$\cdot L^{-1}$)		3	5	4			3	
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2	3	2			3	
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		1270	710	1110			1010	
Total dissolved solids (mg$\cdot L^{-1}$)		27					25	
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	1.68	1.81	1.62	1.89	1.86	1.52	1.07	1.04
Glucose turnover time (h)	172	131	33	16	19	37	104	1076
Dark bottle glucose turnover time (h)		35	26	14			216	
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	3.21	3.66	2.97	1.78	1.04	0.35	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.36	2.60	2.68			0.45	
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		159		162				
Algal volume ($mm^{3}\cdot m^{-3}$)		323		337				

[a] during incubation period

Table 105. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, October 9, 1980.

Compensation depth (m) 5.3
Extinction coefficient (k_e) 0.80
Secchi depth (m) 4.0

Surface temperature (°C) 14.6
Zooplankton biomass (mg dry wt.·m^{-3}) 5.0

Einsteins·m^{-2}·h^{-1} 3.68 [a]
Einsteins·m^{-2}·d^{-1} 25.6
Daily primary production (mg C·m^{-2}·d^{-1}) 293

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.0			6.9			
Dissolved inorganic carbon (mg C·L^{-1})		4.41			4.36			
Dissolved organic carbon (mg C·L^{-1})		3.6	4.0	4.7			3.6	
Particulate carbon (μg C·L^{-1})		717	718	687			240	
Dissolved kjeldahl nitrogen (μg N·L^{-1})		64	63	44			45	
Particulate nitrogen (μg N·L^{-1})		100	104	88			27	
Ammonia (μg N·L^{-1})		4	4	5			5	
Nitrate (μg N·L^{-1})		<1	<1	<1			55	
Total phosphorus (μg P·L^{-1})		4	4	4			1	
Total dissolved phosphorus (μg P·L^{-1})		2	3	2			2	
Soluble reactive silicon (μg Si·L^{-1})		840	800	950			1160	
Total dissolved solids (mg·L^{-1})		29					29	
Bacteria numbers (x10^6·mL^{-1})	1.26	1.50	1.10	1.25	1.66	1.37	1.01	1.01
Glucose turnover time (h)	268	184	104	153	127	116	854	879
Dark bottle glucose turnover time (h)		505	261	94			1300	
Total primary production (mg C·m^{-3}·h^{-1})	8.46	11.02	7.80	2.33	0.18	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		6.30	6.64	2.03			2.01	
Algal numbers (x10^8·m^{-3})[b]		6151		6917				
Algal volume (mm^3·m^{-3})[b]		1353		1564				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 106. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, October 9, 1980.

Compensation depth (m) 6.4	Surface temperature (°C) 14.7	Einsteins·m^{-2}·h^{-1} 3.89 [a]
Extinction coefficient (k_e) 0.64	Zooplankton biomass (mg dry wt.·m^{-3}) 11.9	Einsteins·m^{-2}·d^{-1} 25.6
Secchi depth (m) 4.0		Daily primary production (mg C·m^{-2}·d^{-1}) 144

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.9			6.9			
Dissolved inorganic carbon (mg C·L^{-1})		3.51			3.66			
Dissolved organic carbon (mg C·L^{-1})		3.5	3.7	3.5			3.2	
Particulate carbon (µg C·L^{-1})		292	282	286			190	
Dissolved kjeldahl nitrogen (µg N·L^{-1})		58	53	75			48	
Particulate nitrogen (µg N·L^{-1})		42	36	39			19	
Ammonia (µg N·L^{-1})		4	5	5			4	
Nitrate (µg N·L^{-1})		2	2	1			41	
Total phosphorus (µg P·L^{-1})		1	1	<1			<1	
Total dissolved phosphorus (µg P·L^{-1})		1	1	1			<1	
Soluble reactive silicon (µg Si·L^{-1})		800	950	1400			1150	
Total dissolved solids (mg·L^{-1})		27					25	
Bacteria numbers (x10^6·mL^{-1})	1.43	1.63	1.72	1.93	1.69	1.22	1.62	1.04
Glucose turnover time (h)	110	86	122	116	54	118	124	582
Dark bottle glucose turnover time (h)		158	218	47			125	
Total primary production (mg C·m^{-3}·h^{-1})	2.87	4.18	3.74	1.66	0.42	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		3.17	2.82	1.49			0.22	
Algal numbers (x10^8·m^{-3})		129		152				
Algal volume (mm^3·m^{-3})		48		197				

[a] during incubation period

Table 107. Physical, chemical and biological data from Kennedy Lake, Clayoquot Arm, Station 2, November 21, 1980

Compensation depth (m) 8.4

Extinction coefficient (k_e) 0.53

Secchi depth (m) 4.0

Surface temperature (°C) 9.6

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 8.0

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 0.69 [a]

Einsteins$\cdot m^{-2}\cdot d^{-1}$ 8.18

Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 77

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.0			7.0			
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)		4.01			3.32			
Dissolved organic carbon (mg $C\cdot L^{-1}$)		3.5	3.7	3.9			3.8	
Particulate carbon (µg $C\cdot L^{-1}$)		389	348	326			388	
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		65	85	82			72	
Particulate nitrogen (µg $N\cdot L^{-1}$)		52	45	40			44	
Ammonia (µg $N\cdot L^{-1}$)		9	15	8			9	
Nitrate (µg $N\cdot L^{-1}$)		23	24	22			22	
Total phosphorus (µg $P\cdot L^{-1}$)		2	2	2			2	
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		1	1	2			1	
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		770	770	770			790	
Total dissolved solids (mg$\cdot L^{-1}$)		25					26	
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	1.47	1.41	1.52	1.44	1.59	1.68	1.38	0.79
Glucose turnover time (h)	401	161	229	254	148	123	118	2857
Dark bottle glucose turnover time (h)		119	71	452			391	
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	1.34	1.60	1.00	0.42	0.19	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.95	1.84	1.90			1.34	
Algal numbers ($\times 10^8\cdot m^{-3}$)[b]		772		641				
Algal volume ($mm^3\cdot m^{-3}$)[b]		205		298				

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 108. Physical, chemical and biological data from Kennedy Lake, Main Arm, Station 3, November 21, 1980.

Compensation depth (m) 6.5

Extinction coefficient (k_e) 0.65

Secchi depth (m) 5.0

Surface temperature (°C) 9.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 8.4

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.85 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 8.18

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 38

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.9			6.9			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.25			3.25			
Dissolved organic carbon (mg C$\cdot$L^{-1})		3.6	3.5	3.4			3.5	
Particulate carbon (µg C$\cdot$L^{-1})		228	230	231				
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		59	70	74			81	
Particulate nitrogen (µg N$\cdot$L^{-1})		23	25	63			69	
Ammonia (µg N$\cdot$L^{-1})		10	11	11			12	
Nitrate (µg N$\cdot$L^{-1})		26	24	24			24	
Total phosphorus (µg P$\cdot$L^{-1})		2	2	2			2	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2	1	1			1	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		720	740	740			730	
Total dissolved solids (mg$\cdot$L^{-1})		22					21	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.46	1.47	1.43	1.44	1.35	0.88	1.28	0.92
Glucose turnover time (h)	438	93	142	70	110	119	119	308
Dark bottle glucose turnover time (h)		321	261	104			145	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.95	0.79	0.70	0.30	0.10	0.00	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		0.58	0.57	0.56			0.56	
Algal numbers (x10$^{8}\cdot$m^{-3})		93		66				
Algal volume (mm$^{3}\cdot$m^{-3})		52		53				

[a] during incubation period

Table 109. Physical, chemical and biological data from Kitlope Lake, Station 1, April 30, 1980.

Compensation depth (m) 8.2

Extinction coefficient (k_e) 0.54

Secchi depth (m) 5.5

Surface temperature (°C) 3.3

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.2

Depth (m)	0	1	2	3	5	7.5	10	20
pH				6.2		6.1		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)				1.64		2.04		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		3.0		1.9	1.5			1.9
Particulate carbon (µg $C\cdot L^{-1}$)		248		189	191			223
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		27		66	49			28
Particulate nitrogen (µg $N\cdot L^{-1}$)		22		22	24			24
Ammonia (µg $N\cdot L^{-1}$)		5		6	7			5
Nitrate (µg $N\cdot L^{-1}$)		66		66	66			67
Total phosphorus (µg $P\cdot L^{-1}$)		2		1	2			1
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		<1		1	<1			<1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		930		890	970			960
Total dissolved solids (mg$\cdot L^{-1}$)					24			
Bacteria numbers ($x10^6\cdot mL^{-1}$)	0.43	0.55	0.44	0.55	0.46	0.53	0.44	0.52
Glucose turnover time (h)	309	199	178	346	174	191	182	389
Dark bottle glucose turnover time (h)				464	263			400
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		<0.12		0.16	0.14			<0.12
Algal numbers ($x10^8\cdot m^{-3}$)		128			211			
Algal volume ($mm^3\cdot m^{-3}$)		62			74			

Table 110. Physical, chemical and biological data from Kitlope Lake, Station 1, May 30, 1980.

Compensation depth (m) 8.5 Surface temperature (^{o}C) 7.8 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.55[a]

Extinction coefficient (k_e) 0.52 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 1.8 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 32.54

Secchi depth (m) 6.0 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 2

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.1		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			1.60			1.51		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		0.8		0.8	0.8			
Particulate carbon (µg C$\cdot L^{-1}$)		150		158	135			189
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		26		9	24			12
Particulate nitrogen (µg N$\cdot L^{-1}$)		25		27	22			27
Ammonia (µg N$\cdot L^{-1}$)		9		9	8			12
Nitrate (µg N$\cdot L^{-1}$)		47		54	42			55
Total phosphorus (µg P$\cdot L^{-1}$)		1		2	2			2
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1		1	2			<1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		850		820	800			830
Total dissolved solids (mg$\cdot L^{-1}$)					9			
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	0.72	0.79	0.38	0.79	0.68	0.61	0.48	0.65
Glucose turnover time (h)	90	148	48	50	75	88	135	677
Dark bottle glucose turnover time (h)		62		70	87			245
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	0.04	0.02	0.02	0.02	0.04	0.00	0.01	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		<0.12		<0.12	0.14			<0.12
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		170			267			
Algal volume ($mm^{3}\cdot m^{-3}$)		75			113			

[a] during incubation period

Table III. Total chlorophyll data ($mg \cdot m^{-3}$) from Kitlope Lake, May 30, 1980

Depth (m)	1	3	5	20
Station A	<0.06	<0.06	0.09	0.10
Station B	<0.06	<0.06	0.07	0.10
Station C	0.07	0.23	0.30	0.09
Station D	0.23	0.29	0.25	0.10

Table 112. Physical, chemical and biological data from Kitlope Lake, Station 1, June 28, 1980.

Compensation depth (m) 10.0 Surface temperature (°C) 10.7 Einsteins·$m^{-2}\cdot h^{-1}$ 5.00 [a]

Extinction coefficient (k_e) 0.45 Zooplankton biomass (mg dry wt.·m^{-3}) 2.2 Einsteins·$m^{-2}\cdot d^{-1}$ 45.79

Secchi depth (m) 4.5 Daily primary production (mg C·$m^{-2}\cdot d^{-1}$) 89

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.2		
Dissolved inorganic carbon (mg C·L^{-1})			1.09			1.09		
Dissolved organic carbon (mg C·L^{-1})		0.5		0.9	0.4			<0.1
Particulate carbon (µg C·L^{-1})		174		182	235			209
Dissolved kjeldahl nitrogen (µg N·L^{-1})		36		35	22			25
Particulate nitrogen (µg N·L^{-1})		30		40	28			41
Ammonia (µg N·L^{-1})		<4		<4	<4			15
Nitrate (µg N·L^{-1})		9		10	10			27
Total phosphorus (µg P·L^{-1})		1		2	1			2
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		510		480	490			640
Total dissolved solids (mg·L^{-1})					21			
Bacteria numbers (x10^6·mL^{-1})	0.41	0.41	0.57	0.47	0.55	0.41	0.51	0.58
Glucose turnover time (h)	241	68	47	36	61	83	60	54
Dark bottle glucose turnover time (h)		44		47	62			73
Primary production > 0.2 µm (mg C·$m^{-3}\cdot h^{-1}$)	0.15	0.43	0.80	0.80	1.07	1.04	0.60	0.00
Primary production 0.2-8.0 µm (mg C·$m^{-3}\cdot h^{-1}$)		0.36		0.52	0.73			
Primary production > 8.0 µm (mg C·$m^{-3}\cdot h^{-1}$)		0.07		0.28	0.34			
Total chlorophyll (mg·m^{-3})		1.34		1.48	2.62			0.22
Algal numbers (x10^8·m^{-3})		152			150			
Algal volume ($mm^3\cdot m^{-3}$)		92			153			

[a] during incubation period

Table 113. Total chlorophyll data ($mg \cdot m^{-3}$) from Kitlope Lake, June 28, 1980

Depth (m)	1	3	5	20
Station A	0.31	1.84	4.10	0.20
Station B	0.35	0.30	4.60	0.25
Station C	0.46	1.34	3.20	0.18
Station D	0.62	1.52	2.80	0.33

Table 114. Physical, chemical and biological data from Kitlope Lake, Station 1, July 27, 1980.

Compensation depth (m) 9.5 Surface temperature (^{o}C) 13.0 Einsteins·m^{-2}·h^{-1} 2.34 [a]

Extinction coefficient (k_e) 0.49 Zooplankton biomass (mg dry wt.·m^{-3}) 2.0 Einsteins·m^{-2}·d^{-1} 29.86

Secchi depth (m) 3.0 Daily primary production (mg C·m^{-2}·d^{-1}) 41

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.2		
Dissolved inorganic carbon (mg C·L^{-1})			0.72			0.92		
Dissolved organic carbon (mg C·L^{-1})		2.2		2.3	1.9			
Particulate carbon (µg C·L^{-1})		287		249	224			269
Dissolved kjeldahl nitrogen (µg N·L^{-1})		60		60	86			113
Particulate nitrogen (µg N·L^{-1})		31		35	40			31
Ammonia (µg N·L^{-1})		14		15	14			16
Nitrate (µg N·L^{-1})		2		<1	1			12
Total phosphorus (µg P·L^{-1})		3		<1	1			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	1			<1
Soluble reactive silicon (µg Si·L^{-1})		310		330	340			420
Bacteria numbers (x10^{6}·mL^{-1})	0.68	0.79	0.54	0.49	0.45	0.51	0.55	0.58
Glucose turnover time (h)	81	46	133	57	77	51	661	135
Dark bottle glucose turnover time (h)		51		42	79			61
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	0.52	0.31	0.44	0.53	0.39	0.22	0.02	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		0.30		0.49	0.33			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		0.01		0.04	0.06			
Total chlorophyll (mg·m^{-3})		0.40		1.48	1.84			0.32
Algal numbers (x10^{8}·m^{-3})		58			6			
Algal volume (mm^{3}·m^{-3})		75			46			

[a] during incubation period

Table 115. Physical, chemical and biological data from Kitlope Lake, Station 1, July 28, 1980.

Compensation depth (m) 7.5 Surface temperature (°C) 11.4 Einsteins·$m^{-2}\cdot h^{-1}$ 2.11[a]

Extinction coefficient (k_e) 0.50 Zooplankton biomass (mg dry wt.·m^{-3}) 1.3 Einsteins·$m^{-2}\cdot d^{-1}$ 38.90

Secchi depth (m) 2.5 Daily primary production (mg C·$m^{-2}\cdot d^{-1}$) 68

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.1		
Dissolved inorganic carbon (mg C·L^{-1})			1.02			1.02		
Dissolved organic carbon (mg C·L^{-1})		1.2		1.3	2.4			
Particulate carbon (μg C·L^{-1})		328		267	258			202
Dissolved kjeldahl nitrogen (μg N·L^{-1})		198		211	144			70
Particulate nitrogen (μg N·L^{-1})		50		42	37			29
Ammonia (μg N·L^{-1})		15		14	14			15
Nitrate (μg N·L^{-1})		3		4	4			13
Total phosphorus (μg P·L^{-1})								
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		370		350	360			400
Bacteria numbers (x10^6·mL^{-1})		0.55		0.51	0.49			0.59
Glucose turnover time (h)	681	385	371	109	244	198	285	675
Dark bottle glucose turnover time (h)		122		118	127			
Primary production > 0.2 μm (mg C·$m^{-3}\cdot h^{-1}$)	0.38	0.43	0.47	0.50	0.29	0.21	0.08	0.00
Primary production 0.2-8.0 μm (mg C·$m^{-3}\cdot h^{-1}$)		0.22		0.33	0.17			
Primary production > 8.0 μm (mg C·$m^{-3}\cdot h^{-1}$)		0.21		0.17	0.12			
Total chlorophyll (mg·m^{-3})		0.97		1.29	1.59			0.41
Algal numbers (x10^8·m^{-3})		79			2[b]			
Algal volume (mm^3·m^{-3})		50			16[b]			

[a] during incubation period

[b] no count for ultraphytoplankton

Table 116. Nutrient data following fertilization of Kitlope Lake, July 28, 1980 at 1540 h.

Depth (m)	1	3	5	20
Fertilization + 10 minutes				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	413	696	532	657
Ammonia (μg N·L^{-1})	15	14	14	15
Nitrate (μg N·L^{-1})	<1	2	3	11
Total phosphorus (μg P·L^{-1})	<1	<1	<1	
Total dissolved phosphorus (μg P·L^{-1})	<1	<1	<1	<1
Soluble reactive silicon (μg Si·L^{-1})	350	340	350	400
Fertilization + 2 hours				
Dissolved kjeldahl nitrogen (μg N·L^{-1})	368	113	481	356
Ammonia (μg N·L^{-1})	14	14	13	15
Nitrate (μg N·L^{-1})	5	<1	3	14
Total phosphorus (μg P·L^{-1})	<1	1	1	1
Total dissolved phosphorus (μg P·L^{-1})	<1	<1	1	<1
Soluble reactive silicon (μg Si·L^{-1})	350	340	350	390

Table 117. Nutrient data following fertilization of Kitlope Lake, July 28, 1980 at 1540 h.

Depth (m)	1	3	5	20
Fertilization + 4 hours				
Dissolved kjeldahl nitrogen (ug $N \cdot L^{-1}$)	184	203	404	331
Ammonia (ug $N \cdot L^{-1}$)	15	52	14	15
Nitrate (ug $N \cdot L^{-1}$)	5	68	6	13
Total phosphorus (ug $P \cdot L^{-1}$)	1	16	11	1
Total dissolved phosphorus (ug $P \cdot L^{-1}$)	<1	<1	<1	
Soluble reactive silicon (ug $Si \cdot L^{-1}$)	360	390	390	390

Table 118. Physical and biological data from Kitlope Lake, July 28, 1980.

Station	Surface temperature (°C)	Total chlorophyll (mg·m^{-3})(1 meter)	Zooplankton biomass (mg dry wt.·m^{-3})
1	11.1		
2	11.1		
3	11.7		
4	11.2		
5	11.5		
6W	12.4	0.50	1.7
6C	11.3	0.68	1.8
6E	11.0	0.71	2.2
7W	11.9	0.33	2.8
7C	12.5	0.24	3.9
7E	12.0	0.57	3.9
8W	10.2	0.40	2.2
8C	9.5		5.1
8E	9.2	1.06	4.2
9C	9.7	0.88	
10C	11.5	0.22	4.1

Table 119. Physical, chemical and biological data from Kitlope Lake, Station 1, July 29, 1980.

Compensation depth (m) 10.0 Surface temperature ($^{\circ}$C) 11.3 Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.03 [a]

Extinction coefficient (k_e) 0.45 Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 3.7 Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 19.98

Secchi depth (m) 3.0 Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 34

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.4			6.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			0.75			0.86		
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.5		1.9	1.8			
Particulate carbon (μg C$\cdot$L^{-1})		403		540	346			368
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		560		408	365			269
Particulate nitrogen (μg N$\cdot$L^{-1})		54		83	49			50
Ammonia (μg N$\cdot$L^{-1})		22		14	13			15
Nitrate (μg N$\cdot$L^{-1})		57		7	<1			7
Total phosphorus (μg P$\cdot$L^{-1})		4		3	<1			<1
Total dissolved phosphorus (μg P$\cdot$L^{-1})		<1		1	<1			<1
Soluble reactive silicon (μg Si$\cdot$L^{-1})		360		380	360			400
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		0.56		0.54	0.49			0.58
Glucose turnover time (h)	275	37	45	43	111	82	165	355
Dark bottle glucose turnover time (h)		67		56	132			174
Primary production > 0.2 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.14	0.15	0.20	0.38	0.47	0.20	0.21	0.00
Primary production 0.2-8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})				0.30				
Primary production > 8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})				0.08				
Total chlorophyll (mg$\cdot$m^{-3})		0.22		0.66	2.01			0.24
Algal numbers (x10$^{8}\cdot$m^{-3})		99			6[b]			
Algal volume (mm$^{3}\cdot$m^{-3})		119			64[b]			

[a] during incubation period

[b] no count for ultraphytoplankton

Table 120. Physical, chemical and biological data from Kitlope Lake, Station 2, July 29, 1980.

Compensation depth (m) 10.0 Surface temperature (^{o}C) 11.4 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 1.94 [a]

Extinction coefficient (k_e) 0.45 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 4.1 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 19.98

Secchi depth (m) 3.0 Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 28

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			6.3		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			0.92			0.85		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		2.5		1.4	5.4			2.0
Particulate carbon ($\mu g\ C\cdot L^{-1}$)		354		322	279			296
Dissolved kjeldahl nitrogen ($\mu g\ N\cdot L^{-1}$)		331		176	100			38
Particulate nitrogen ($\mu g\ N\cdot L^{-1}$)		45		46	37			33
Ammonia ($\mu g\ N\cdot L^{-1}$)		23		13	14			14
Nitrate ($\mu g\ N\cdot L^{-1}$)		33		13	<1			12
Total phosphorus ($\mu g\ P\cdot L^{-1}$)		4		<1	<1			<1
Total dissolved phosphorus ($\mu g\ P\cdot L^{-1}$)		4		3	2			<1
Soluble reactive silicon ($\mu g\ Si\cdot L^{-1}$)		390		370	370			390
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)		0.49		0.55				
Glucose turnover time (h)	91	39	38	45	34	44	53	40
Dark bottle glucose turnover time (h)		44		45	74			43
Primary production $>$ 0.2 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)	0.23	0.23	0.32	0.25	0.36	0.24	0.05	0.00
Primary production 0.2-8.0 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)		0.19		0.20	0.23			
Primary production $>$ 8.0 μm (mg $C\cdot m^{-3}\cdot h^{-1}$)		0.04		0.05	0.13			
Total chlorophyll ($mg\cdot m^{-3}$)		0.18		0.40	1.28			0.42
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		19			12[b]			
Algal volume ($mm^{3}\cdot m^{-3}$)		54			86[b]			

[a] during incubation period

[b] no count for ultraphytoplankton

Table 121. Chlorophyll data from Kitlope Lake, Station 1, July 29, 1980.

Depth	Total chlorophyll (mg·m^{-3})
0	0.18
1	0.28
2	0.32
3	0.60
4	1.04
5	1.22
6	1.38
7	1.18
8	1.02
9	1.12
10	0.90
11	0.92
12	0.76
13	0.28
14	0.24
15	0.24
16	0.26
17	0.18
18	0.12
19	0.28

Table 122. Zooplankton biomass data from five consecutive hauls from Kitlope Lake, July 29, 1980.

Haul No.	Zooplankton biomass (mg dry wt.$\cdot$m^{-3})
1	4.2
2	4.7
3	1.7
4	4.5
5	3.6

Table 123. Physical, chemical and biological data from Kitlope Lake, Station 1, July 30, 1980.

Compensation depth (m) 9.3 Surface temperature (°C) 11.5 Einsteins·m^{-2}·h^{-1} 1.55 [a]
Extinction coefficient (k_e) 0.48 Zooplankton biomass (mg dry wt.·m^{-3}) 2.9 Einsteins·m^{-2}·d^{-1} 25.91
Secchi depth (m) 3.0 Daily primary production (mg C·m^{-2}·d^{-1}) 90

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.4			6.2		
Dissolved inorganic carbon (mg C·L^{-1})			0.83			1.04		
Dissolved organic carbon (mg C·L^{-1})		3.1		1.9	2.0			
Particulate carbon (μg C·L^{-1})		210		190	274			276
Dissolved kjeldahl nitrogen (μg N·L^{-1})		92		71	69			235
Particulate nitrogen (μg N·L^{-1})		27		29	40			33
Ammonia (μg N·L^{-1})		15		14	14			14
Nitrate (μg N·L^{-1})		21		9	<1			15
Total phosphorus (μg P·L^{-1})		3		<1	2			<1
Total dissolved phosphorus (μg P·L^{-1})		1		1	1			<1
Soluble reactive silicon (μg Si·L^{-1})		370		340	380			430
Total dissolved solids (mg·L^{-1})					15			
Bacteria numbers (x10^6·mL^{-1})		0.52		0.58	0.54			0.62
Glucose turnover time (h)	1694	114	39	37	57	68	96	387
Dark bottle glucose turnover time (h)		67		36	130			130
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	0.38	0.42	0.52	0.51	0.93	0.41	0.12	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		0.34		0.43	0.53			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.08		0.08	0.40			
Total chlorophyll (mg·m^{-3})		0.41		1.02	3.37			0.31
Algal numbers (x10^8·m^{-3})		119			170			
Algal volume (mm^3·m^{-3})		97			397			

[a] during incubation period

Table 124. Physical, chemical and biological data from Kitlope Lake, Station 2, July 30, 1980.

Compensation depth (m) 9.4 Surface temperature (^{o}C) 11.5 Einsteins·m^{-2}·h^{-1} 2.11 [a]

Extinction coefficient (k_e) 0.47 Zooplankton biomass (mg dry wt.·m^{-3}) 3.7 Einsteins·m^{-2}·d^{-1} 25.91

Secchi depth (m) 3.0 Daily primary production (mg C·m^{-2}·d^{-1}) 78

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.2		
Dissolved inorganic carbon (mg C·L^{-1})			0.86			1.16		
Dissolved organic carbon (mg C·L^{-1})		1.5		1.4	2.0			1.3
Particulate carbon (μg C·L^{-1})		195		208	307			185
Dissolved kjeldahl nitrogen (μg N·L^{-1})		84		224	306			380
Particulate nitrogen (μg N·L^{-1})		29		34	36			24
Ammonia (μg N·L^{-1})		23		15	14			14
Nitrate (μg N·L^{-1})		25		5	<1			11
Total phosphorus (μg P·L^{-1})		4		1	<1			1
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		360		360	370			390
Total dissolved solids (mg·L^{-1})					19			
Bacteria numbers (x10^{6}·mL^{-1})		0.51		0.42	0.49			0.59
Glucose turnover time (h)	70	55	40	45	54	37	45	65
Dark bottle glucose turnover time (h)		73		48	124			69
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	0.46	0.45	0.81	0.85	1.01	0.44	0.05	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		0.35		0.71	0.53			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.10		0.14	0.48			
Total chlorophyll (mg·m^{-3})		0.57		1.43	3.85			0.33
Algal numbers (x10^{8}·m^{-3})		168			18 [b]			
Algal volume (mm^{3}·m^{-3})		101			122 [b]			

[a] during incubation period

[b] no count for ultraphytoplankton

Table 125. Temperature and chlorophyll data from Kitlope Lake, July 30, 1980.

Station	Depth (m)	Temperature (°C)	Total chlorophyll ($mg \cdot m^{-3}$)
K1	0	15.3	
	1	10.2	0.67
	3	9.2	1.35
	5	8.8	3.66
K2	0	14.3	
	1	10.4	0.51
	3	9.3	0.82
	5	9.0	3.61
K3	0	13.0	
	1	11.9	0.43
	3	9.8	0.73
	5	9.1	2.71
K4	0	12.9	
	1	11.4	0.57
	3	9.5	1.52
	5	9.1	4.19
K5	0	12.8	
	1	11.4	0.47
	3	9.6	1.00
	5	9.1	3.61
K6	0	12.4	
	1	11.3	0.43
	3	9.9	1.25
	5	9.2	2.71

Table 126. Physical, chemical and biological data from Kitlope Lake, Station 1, July 31, 1980.

Compensation depth (m) 10.1 Surface temperature (°C) 11.7 Einsteins·m^{-2}·h^{-1} 1.47[a]

Extinction coefficient (k_e) 0.44 Zooplankton biomass (mg dry wt.·m^{-3}) 4.8 Einsteins·m^{-2}·d^{-1} 24.02

Secchi depth (m) 3.0 Daily primary production (mg C·m^{-2}·d^{-1}) 77

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.1		
Dissolved inorganic carbon (mg C·L^{-1})			0.89			1.25		
Dissolved organic carbon (mg C·L^{-1})		1.9		2.2	2.7			
Particulate carbon (µg C·L^{-1})		207		208	318			194
Dissolved kjeldahl nitrogen (µg N·L^{-1})		269		184	216			336
Particulate nitrogen (µg N·L^{-1})		24		23	38			23
Ammonia (µg N·L^{-1})		17		18	17			19
Nitrate (µg N·L^{-1})		17		9	<1			17
Total phosphorus (µg P·L^{-1})		<1		1	1			<1
Total dissolved phosphorus (µg P·L^{-1})		1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		380		390	370			430
Bacteria numbers (x10^6·mL^{-1})		0.59		0.59	0.56			0.70
Glucose turnover time (h)	40	39	64	16	46	56	66	295
Dark bottle glucose turnover time (h)		28		18	34			308
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	0.45	0.44	0.47	0.40	0.77	0.29	0.10	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		0.37		0.34	0.39			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		0.07		0.06	0.38			
Total chlorophyll (mg·m^{-3})		0.33		0.76	2.65			0.28
Algal numbers (x10^8·m^{-3})		127			14[b]			
Algal volume (mm^3·m^{-3})		82			131[b]			

[a] during incubation period

[b] no count for ultraphytoplankton

Table 127. Physical, chemical and biological data from Kitlope Lake, Station 1, August 19, 1980.

Compensation depth (m) 8.9 Surface temperature (^{o}C) 12.7 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.10 [a]

Extinction coefficient (k_e) 0.51 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 5.7 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 25.86

Secchi depth (m) 2.5 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 26

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.5			6.3		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			0.61			0.67		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		3.0		3.1	2.9			>7.5
Particulate carbon (µg C$\cdot L^{-1}$)		159		179	231			249
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		40		48	37			23
Particulate nitrogen (µg N$\cdot L^{-1}$)				31	36			33
Ammonia (µg N$\cdot L^{-1}$)		<4		<4	6			6
Nitrate (µg N$\cdot L^{-1}$)		8		9	6			14
Total phosphorus (µg P$\cdot L^{-1}$)		5		8	10			9
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		1		1	1			1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		620		640	540			620
Total dissolved solids (mg$\cdot L^{-1}$)					8			
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	0.79	0.95	0.68	0.73	0.71	0.76	0.70	0.64
Glucose turnover time (h)	212	164	123	74	58	101	163	238
Dark bottle glucose turnover time (h)		427		88	278			103
Primary production > 0.2 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)	0.32	0.50	0.48	0.47	0.33	0.17	0.04	0.00
Primary production 0.2-8.0 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)		0.46		0.35	0.24			
Primary production > 8.0 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)		0.04		0.12	0.09			
Total chlorophyll (mg$\cdot m^{-3}$)		1.16		0.70	1.30			0.50
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		77			74			
Algal volume ($mm^{3}\cdot m^{-3}$)		58			63			

[a] during incubation period

Table 128. Physical, chemical and biological data from Kitlope Lake, Station 1, September 23, 1980.

Compensation depth (m) 3.7 Surface temperature (°C) 10.3 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 1.68 [a]

Extinction coefficient (k_e) 1.28 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 28.9 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 12.54

Secchi depth (m) 1.0 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 27

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			5.8		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			1.31			1.65		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		3.8		3.2	2.6			2.8
Particulate carbon (μg C$\cdot L^{-1}$)		422		377				364
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		144		175	110			155
Particulate nitrogen (μg N$\cdot L^{-1}$)		42		48				41
Ammonia (μg N$\cdot L^{-1}$)		<4		7	<4			<4
Nitrate (μg N$\cdot L^{-1}$)		28		30	19			28
Total phosphorus (μg P$\cdot L^{-1}$)		9		8	8			11
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2		3	4			2
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		700		670	650			650
Total dissolved solids (mg$\cdot L^{-1}$)					12			
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	1.23	1.37	2.41	0.61	0.56	0.62	0.64	0.61
Glucose turnover time (h)	58	48	50	55	107	54	70	396
Dark bottle glucose turnover time (h)		40		58	82			158
Primary production > 0.2 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)	1.61	1.48	0.81	0.33	0.02	0.00	0.00	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		1.06		0.25	0.00			
Primary production > 8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		0.42		0.08	0.02			
Total chlorophyll (mg$\cdot m^{-3}$)		2.04		1.56	0.88			0.32
Algal numbers ($\times 10^8\cdot m^{-3}$)		36[b]			22[b]			
Algal volume ($mm^3\cdot m^{-3}$)		117[b]			137[b]			

[a] during incubation period

[b] ultraphytoplankton counted by epifluorescence

Table 129. Physical, chemical and biological data from Kitlope Lake, Station 1, October 25, 1980.

Compensation depth (m) 4.5 Surface temperature (°C) 8.0 Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.32 [a]

Extinction coefficient (k_e) 0.98 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 3.5 Einsteins$\cdot m^{-2} \cdot d^{-1}$ 7.50

Secchi depth (m) 1.5 Daily primary production (mg C$\cdot m^{-2} \cdot d^{-1}$) 4

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.8			6.0		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			1.71			1.51		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		2.2		2.0	1.6			>7.5
Particulate carbon (μg C$\cdot L^{-1}$)		300		259	250			334
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		64		46	88			31
Particulate nitrogen (μg N$\cdot L^{-1}$)		44		43	38			48
Ammonia (μg N$\cdot L^{-1}$)		9		9	8			21
Nitrate (μg N$\cdot L^{-1}$)		24		24	25			28
Total phosphorus (μg P$\cdot L^{-1}$)		5		5	5			5
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		2		1	3			3
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		680		670	690			730
Total dissolved solids (mg$\cdot L^{-1}$)					9			
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.62	0.67	0.71	0.76	0.67	0.54	0.68	0.73
Glucose turnover time (h)	206	74	83	104	74	70	92	217
Dark bottle glucose turnover time (h)		1771		96	111			389
Primary production > 0.2 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)	0.49	0.28	0.13	0.06	0.00	0.00	0.00	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)		0.20		0.06	0.00			
Primary production > 8.0 μm (mg C$\cdot m^{-3} \cdot h^{-1}$)		0.08		0.00	0.00			
Total chlorophyll (mg$\cdot m^{-3}$)		1.04		0.96	0.70			0.52
Algal numbers ($\times 10^8 \cdot m^{-3}$)		24[b]			16[b]			
Algal volume ($mm^3 \cdot m^{-3}$)		157[b]			181[b]			

[a] during incubation period
[b] ultraphytoplankton counted by epifluorescence

Table 130. Physical, chemical and biological data from Long Lake, Station 2, March 21, 1980.

Compensation depth (m) 6.4 Surface temperature (^{o}C) 5.9 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 4.43 [a]

Extinction coefficient (k_e) 0.69 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.9 Einsteins$\cdot m^{-2}\cdot d^{-1}$ ______

Secchi depth (m) 5.5 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) ______

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			6.1		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			2.16			2.43		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		2.5		2.5	2.6			3.0
Particulate carbon (µg C$\cdot L^{-1}$)		129		98	108			93
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		50		71	64			59
Particulate nitrogen (µg N$\cdot L^{-1}$)		21		19	20			17
Ammonia (µg N$\cdot L^{-1}$)		<4		<4	<4			43
Nitrate (µg N$\cdot L^{-1}$)		57		58	59			59
Total phosphorus (µg P$\cdot L^{-1}$)		4		4	4			4
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		1		1	2			2
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		1100		980	990			1020
Total dissolved solids (mg$\cdot L^{-1}$)		13						8
Bacteria numbers (x$10^{6}\cdot mL^{-1}$)	1.06	1.00	0.96	1.08	1.02	1.06	1.05	0.98
Glucose turnover time (h)	258	382	449	598	925	400	440	541
Dark bottle glucose turnover time (h)		343		248	355			
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	0.18	0.14	0.12	0.10	0.11	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		0.56		0.34	0.32			0.28
Algal numbers (x$10^{8}\cdot m^{-3}$)		23			19			
Algal volume ($mm^{3}\cdot m^{-3}$)		81			79			

[a] during incubation period

Table 131. Physical, chemical and biological data from Long Lake, Station 3, March 21, 1980.

Compensation depth (m) 5.9

Extinction coefficient (k_e) 0.79

Secchi depth (m) 6.0

Surface temperature (°C) 5.9

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 4.8

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 4.40 [a]

Einsteins$\cdot m^{-2}\cdot d^{-1}$ ______

Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) ______

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.2			5.7		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			1.82			3.20		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		3.3		2.3	4.3			3.1
Particulate carbon (µg $C\cdot L^{-1}$)		144		73	116			159
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		53		51	50			49
Particulate nitrogen (µg $N\cdot L^{-1}$)		18		12	16			20
Ammonia (µg $N\cdot L^{-1}$)		13		25	8			27
Nitrate (µg $N\cdot L^{-1}$)		57		56	56			56
Total phosphorus (µg $P\cdot L^{-1}$)		4		5	5			3
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		1		4	1			2
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		1080		980	1000			1030
Total dissolved solids (mg$\cdot L^{-1}$)		11						13
Bacteria numbers ($\times10^{6}\cdot mL^{-1}$)		1.23		1.21	1.34			1.23
Glucose turnover time (h)	267	286	222	293	152	346	261	190
Dark bottle glucose turnover time (h)		212		947	499			153
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	0.10	0.29	0.27	0.22		0.08	0.02	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		0.46		0.44	0.42			0.38
Algal numbers ($\times10^{8}\cdot m^{-3}$)		103			136			
Algal volume ($mm^{3}\cdot m^{-3}$)		202			112			

[a] during incubation period

Table 132. Physical, chemical and biological data from Long Lake, Station 2, April 19, 1980.

Compensation depth (m) 3.8 Surface temperature ($^{\circ}C$) 5.6 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 2.41[a]
Extinction coefficient (k_e) 1.21 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 3.4 Einsteins$\cdot m^{-2}\cdot d^{-1}$ ____
Secchi depth (m) 6.5 Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) ____

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			5.9		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			1.40			2.56		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		2.7		1.9	5.2			2.8
Particulate carbon (μg $C\cdot L^{-1}$)		166		172	198			127
Dissolved kjeldahl nitrogen (μg $N\cdot L^{-1}$)		54		53	101			34
Particulate nitrogen (μg $N\cdot L^{-1}$)		21		25	28			20
Ammonia (μg $N\cdot L^{-1}$)		19		17	17			15
Nitrate (μg $N\cdot L^{-1}$)		35		36	44			48
Total phosphorus (μg $P\cdot L^{-1}$)		2		2	2			2
Total dissolved phosphorus (μg $P\cdot L^{-1}$)		2		2	2			1
Soluble reactive silicon (μg $Si\cdot L^{-1}$)		980		990	1010			1010
Total dissolved solids (mg$\cdot L^{-1}$)		14						13
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)	0.90	1.09	1.15	1.01	1.13			1.16
Glucose turnover time (h)	278	214	136	214	200	195	331	1145
Dark bottle glucose turnover time (h)		178		378	209			1346
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	0.11	0.12	0.09	0.09	0.05	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		0.31		0.35	0.41			0.35
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		22			21			
Algal volume ($mm^{3}\cdot m^{-3}$)		94			102			

[a] during incubation period

Table 133. Physical, chemical and biological data from Long Lake, Station 3, April 19, 1980.

Compensation depth (m) 4.2

Extinction coefficient (k_e) 1.11

Secchi depth (m) 5.0

Surface temperature (^{o}C) 6.6

Zooplankton biomass 4.7
(mg dry wt.$\cdot$m^{-3})

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.55 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} _____

Daily primary production _____
(mg C$\cdot$m$^{-2}\cdot$d^{-1})

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			6.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			2.24			1.75		
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.0		2.1	3.1			2.1
Particulate carbon (µg C$\cdot$L^{-1})		27		46	149			122
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		40		52	54			70
Particulate nitrogen (µg N$\cdot$L^{-1})		9		11	31			22
Ammonia (µg N$\cdot$L^{-1})		22		18	17			16
Nitrate (µg N$\cdot$L^{-1})		44		43	43			43
Total phosphorus (µg P$\cdot$L^{-1})		2		2	2			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		2	2			1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1000		990	1010			980
Total dissolved solids (mg$\cdot$L^{-1})		12						10
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.94	1.04	0.99	1.09	1.07	1.12	1.04	0.81
Glucose turnover time (h)	194	141	109	151	165	181	194	197
Dark bottle glucose turnover time (h)		140		119	130			314
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.83	0.97	0.94	0.80	0.27	0.03	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		1.20		1.11	1.14			0.88
Algal numbers (x10$^{8}\cdot$m^{-3})		108			131			
Algal volume (mm$^{3}\cdot$m^{-3})		199			282			

[a] during incubation period

Table 134. Physical, chemical and biological data from Long Lake, Station 2, May 13, 1980.

Compensation depth (m) 6.7 Surface temperature (°C) 11.2 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.82 [a]

Extinction coefficient (k_e) 0.63 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.4 Einsteins$\cdot m^{-2}\cdot d^{-1}$ ____

Secchi depth (m) 5.0 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) ____

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.0		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			2.23			2.61		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		2.0		1.8	1.8			4.2
Particulate carbon (μg C$\cdot L^{-1}$)		289		219	251			166
Dissolved kjeldahl nitrogen (μg N$\cdot L^{-1}$)		46		53	49			30
Particulate nitrogen (μg N$\cdot L^{-1}$)		50		39	35			21
Ammonia (μg N$\cdot L^{-1}$)		12		12	17			15
Nitrate (μg N$\cdot L^{-1}$)		42		44	46			64
Total phosphorus (μg P$\cdot L^{-1}$)		1		1	1			<1
Total dissolved phosphorus (μg P$\cdot L^{-1}$)		<1		<1	<1			<1
Soluble reactive silicon (μg Si$\cdot L^{-1}$)		930		940	900			970
Total dissolved solids (mg$\cdot L^{-1}$)		12						11
Bacteria numbers (x$10^6\cdot mL^{-1}$)	0.44	0.49	0.79	0.61		0.79	0.79	0.81
Glucose turnover time (h)	301	95	418	347	352	639	471	785
Dark bottle glucose turnover time (h)		490		296	270			
Primary production > 0.2 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)	2.49	1.63	1.82	1.13	0.34	0.06	0.00	0.00
Primary production 0.2-8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		1.21		0.93	0.28			
Primary production > 8.0 μm (mg C$\cdot m^{-3}\cdot h^{-1}$)		0.42		0.20	0.06			
Total chlorophyll (mg$\cdot m^{-3}$)		1.74		1.76	0.98			0.24
Algal numbers (x$10^8\cdot m^{-3}$)		38			114			
Algal volume (mm$^3\cdot m^{-3}$)		184			134			

[a] during incubation period

Table 135. Physical, chemical and biological data from Long Lake, Station 3, May 13, 1980.

Compensation depth (m) 6.8
Extinction coefficient (k_e) 0.63
Secchi depth (m) 5.5
Surface temperature (°C) 10.6
Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 3.0
Einsteins$\cdot m^{-2}\cdot h^{-1}$ 4.76[a]
Einsteins$\cdot m^{-2}\cdot d^{-1}$ ______
Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) ______

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			6.1		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			2.09			2.50		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		2.1		1.9	2.0			1.8
Particulate carbon (µg C$\cdot L^{-1}$)		254		207				145
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		27		43	36			11
Particulate nitrogen (µg N$\cdot L^{-1}$)		41		35				19
Ammonia (µg N$\cdot L^{-1}$)		10		11	10			11
Nitrate (µg N$\cdot L^{-1}$)		47		46	47			57
Total phosphorus (µg P$\cdot L^{-1}$)		1		1	1			<1
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		880		880	870			880
Total dissolved solids (mg$\cdot L^{-1}$)		11						10
Bacteria numbers (x$10^6\cdot mL^{-1}$)	0.55	0.59	0.51	0.51	0.52	0.50	0.65	0.77
Glucose turnover time (h)	194	275	237	240	198	135	165	170
Dark bottle glucose turnover time (h)		313		280	202			172
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	2.50	1.50	1.26	0.85	0.22	0.00	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.50		1.40	1.08			0.19
Algal numbers (x$10^8\cdot m^{-3}$)		40			43			
Algal volume ($mm^3\cdot m^{-3}$)		223			209			

[a] during incubation period

Table 136. Physical, chemical and biological data from Long Lake, Station 2, June 10, 1980.

Compensation depth (m) 8.0 Surface temperature (^{o}C) 14.3 Einsteins·m^{-2}·h^{-1} 1.34 [a]
Extinction coefficient (k_e) 0.52 Zooplankton biomass (mg dry wt.·m^{-3}) 3.7 Einsteins·m^{-2}·d^{-1} 27.05
Secchi depth (m) 5.5 Daily primary production (mg C·m^{-2}·d^{-1}) 137

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.7		
Dissolved inorganic carbon (mg C·L^{-1})			4.17			3.63		
Dissolved organic carbon (mg C·L^{-1})		1.6		1.9	2.0			3.4
Particulate carbon (μg C·L^{-1})		258		264	258			160
Dissolved kjeldahl nitrogen (μg N·L^{-1})		24		64	59			10
Particulate nitrogen (μg N·L^{-1})		41		37	44			34
Ammonia (μg N·L^{-1})		<4		<4	<4			7
Nitrate (μg N·L^{-1})		31		33	32			59
Total phosphorus (μg P·L^{-1})		1		1	1			1
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		910		910	900			950
Total dissolved solids (mg·L^{-1})		15						11
Bacteria numbers (x10^{6}·mL^{-1})	0.71	0.63	0.79	0.80	0.80	1.62	1.06	0.99
Glucose turnover time (h)	120	136	150	107	146	113	126	638
Dark bottle glucose turnover time (h)		413		163	178			519
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	2.42	1.15	1.14	0.99	0.77	0.02	0.00	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		0.58		0.50	0.64			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.57		0.49	0.13			
Total chlorophyll (mg·m^{-3})		1.42		2.60	2.50			0.28
Algal numbers (x10^{8}·m^{-3})		44			38			
Algal volume (mm^{3}·m^{-3})		170			501			

[a] during incubation period

Table 137. Physical, chemical and biological data from Long Lake, Station 3, June 10, 1980.

Compensation depth (m) 8.8
Extinction coefficient (k_e) 0.49
Secchi depth (m) 5.5
Surface temperature (°C) 13.1
Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 4.0
Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.57[a]
Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 27.05
Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 73

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.8			5.8		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			3.32			3.44		
Dissolved organic carbon (mg C$\cdot$L^{-1})		1.4		1.6	1.5			1.4
Particulate carbon (µg C$\cdot$L^{-1})		251		200	214			178
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		37		32	<10			<10
Particulate nitrogen (µg N$\cdot$L^{-1})		47		42	43			44
Ammonia (µg N$\cdot$L^{-1})		<4		<4	<4			<4
Nitrate (µg N$\cdot$L^{-1})		40		40	39			60
Total phosphorus (µg P$\cdot$L^{-1})		1		1	1			1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		930		920	950			930
Total dissolved solids (mg$\cdot$L^{-1})		13						10
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.92	0.68	1.70	0.60	0.90	0.77	0.65	1.07
Glucose turnover time (h)	84	128	105	89	111	89	80	153
Dark bottle glucose turnover time (h)		104		105	140			116
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.29	1.25	0.66	0.45	0.22	0.00	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.46		2.16	2.12			0.24
Algal numbers (x10$^{8}\cdot$m^{-3})		67			79			
Algal volume (mm$^{3}\cdot$m^{-3})		106			529			

[a] during incubation period

Table 138. Physical, chemical and biological data from Long Lake, Station 2, July 8, 1980.

Compensation depth (m) 6.5 Surface temperature (^{o}C) 16.0 Einsteins·m^{-2}·h^{-1} 5.92 [a]

Extinction coefficient (k_e) 0.47 Zooplankton biomass (mg dry wt.·m^{-3}) 0.6 Einsteins·m^{-2}·d^{-1} 55.78

Secchi depth (m) 5.0 Daily primary production (mg C·m^{-2}·d^{-1}) 62

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.8			6.4		
Dissolved inorganic carbon (mg C·L^{-1})			1.25			1.75		
Dissolved organic carbon (mg C·L^{-1})		3.5		3.5	3.3			3.7
Particulate carbon (µg C·L^{-1})		579		571	368			237
Dissolved kjeldahl nitrogen (µg N·L^{-1})		52		89	22			48
Particulate nitrogen (µg N·L^{-1})		75		77	57			43
Ammonia (µg N·L^{-1})		6		7	7			8
Nitrate (µg N·L^{-1})		5		3	5			48
Total phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		770		700	790			970
Total dissolved solids (mg·L^{-1})		17						18
Bacteria numbers (x10^{6}·mL^{-1})	0.68	0.68		0.70	0.65	0.64	0.92	0.97
Glucose turnover time (h)	214	128	75	119	152	201	99	100
Dark bottle glucose turnover time (h)		877		93	132			93
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	0.94	0.77	1.00	1.08	0.85	0.30	0.04	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		0.49		0.68	0.40			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		0.28		0.40	0.45			
Total chlorophyll (mg·m^{-3})		1.57		2.09	1.88			0.27
Algal numbers (x10^{8}·m^{-3})		47			51			
Algal volume (mm^{3}·m^{-3})		839			929			

[a] during incubation period

Table 139. Physical, chemical and biological data from Long Lake, Station 3, July 8, 1980.

Compensation depth (m) 8.9
Extinction coefficient (k_e) 0.50
Secchi depth (m) 5.5
Surface temperature (°C) 16.6
Zooplankton biomass (mg dry wt.·m^{-3}) 3.6
Einsteins·m^{-2}·h^{-1} 5.58 [a]
Einsteins·m^{-2}·d^{-1} 55.78
Daily primary production (mg C·m^{-2}·d^{-1}) 62

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.5		
Dissolved inorganic carbon (mg C·L^{-1})			1.85			1.44		
Dissolved organic carbon (mg C·L^{-1})		3.7		3.4	3.2			
Particulate carbon (µg C·L^{-1})		343		365	461			465
Dissolved kjeldahl nitrogen (µg N·L^{-1})		65		59	47			46
Particulate nitrogen (µg N·L^{-1})		52		61	80			73
Ammonia (µg N·L^{-1})		11		11	7			8
Nitrate (µg N·L^{-1})		12		12	13			50
Total phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		830		780	930			280
Total dissolved solids (mg·L^{-1})		17						15
Bacteria numbers (x10^6·mL^{-1})	0.91	0.94	0.89	0.91	0.83	0.80	0.94	0.86
Glucose turnover time (h)	258	149	163	192	272	92	167	1130
Dark bottle glucose turnover time (h)		254		387	2145			1600
Total primary production (mg C·m^{-3}·h^{-1})	0.89	0.84	1.02	1.11	0.81	0.16	0.03	0.00
Total chlorophyll (mg·m^{-3})		1.46		1.99	1.86			0.44
Algal numbers (x10^8·m^{-3})		17			74			
Algal volume (mm^3·m^{-3})		365			1064			

[a] during incubation period

Table 140. Physical, chemical and biological data from Long Lake, Station 2, August 5, 1980.

Compensation depth (m) 8.6 Surface temperature (^{o}C) 17.4 Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 5.92 [a]

Extinction coefficient (k_e) 0.51 Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 3.6 Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 48.94

Secchi depth (m) 5.0 Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 85

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.5			6.5		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.53			1.51		
Dissolved organic carbon (mg C$\cdot$L^{-1})		4.1		4.5	4.8			
Particulate carbon (μg C$\cdot$L^{-1})		405		365				210
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		61		83	72			42
Particulate nitrogen (μg N$\cdot$L^{-1})		49		18				27
Ammonia (μg N$\cdot$L^{-1})		7		3	6			8
Nitrate (μg N$\cdot$L^{-1})		<1		<1	<1			36
Total phosphorus (μg P$\cdot$L^{-1})		<1		2	<1			<1
Total dissolved phosphorus (μg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si$\cdot$L^{-1})		750		750	750			910
Total dissolved solids (mg$\cdot$L^{-1})				10	11			
Bacteria numbers ($\times 10^{6}\cdot$mL^{-1})	0.43	0.65	0.68	0.77	0.64	0.65	0.77	0.79
Glucose turnover time (h)	154	51	42	49	58	71	63	339
Dark bottle glucose turnover time (h)		47		85	175			3293
Primary production > 0.2 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})	1.06	1.62	1.67	1.84	1.29	0.36	0.08	0.00
Primary production 0.2-8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		1.14		1.18	0.77			
Primary production > 8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		0.48		0.66	0.52			
Total chlorophyll (mg$\cdot$m^{-3})		2.80		2.30	2.24			0.34
Algal numbers ($\times 10^{8}\cdot$m^{-3})		46			55			
Algal volume (mm$^{3}\cdot$m^{-3})		738			1136			

[a] during incubation period

Table 141. Physical, chemical and biological data from Long Lake, Station 3, August 5, 1980.

Compensation depth (m) 9.1

Extinction coefficient (k_e) 0.48

Secchi depth (m) 6.5

Surface temperature (°C) 17.7

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.8

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 5.77[a]

Einsteins$\cdot m^{-2}\cdot d^{-1}$ 48.94

Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 83

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.6			6.5		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			1.79			1.61		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		6.1		6.6	5.8			5.7
Particulate carbon (µg $C\cdot L^{-1}$)		345		332	326			285
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		55		104	115			42
Particulate nitrogen (µg $N\cdot L^{-1}$)		46		42	40			30
Ammonia (µg $N\cdot L^{-1}$)		10		6	9			6
Nitrate (µg $N\cdot L^{-1}$)		<1		<1	3			56
Total phosphorus (µg $P\cdot L^{-1}$)		<1		<1	<1			<1
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		1		<1	<1			<1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		760		760	770			950
Total dissolved solids (mg$\cdot L^{-1}$)				12	19			
Bacteria numbers ($x10^6\cdot mL^{-1}$)	0.80	0.83	0.80	0.59	0.73	0.74	0.77	0.79
Glucose turnover time (h)	77	37	37	50	41	43	45	279
Dark bottle glucose turnover time (h)		47		84	101			702
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	1.14	1.70	1.98	1.65	0.98	0.34	0.09	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.52		2.28	2.22			0.28
Algal numbers ($x10^8\cdot m^{-3}$)		66			41			
Algal volume ($mm^3\cdot m^{-3}$)		972			632			

[a] during incubation period

Table 142. Physical, chemical and biological data from Long Lake, Station 2, September 9, 1980.

Compensation depth (m) 5.2 Surface temperature (^{o}C) 15.5 Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 4.23 ^{a}

Extinction coefficient (k_e) 0.87 Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 1.8 Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 37.34

Secchi depth (m) 3.5 Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 91

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.7			6.3		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.25			1.56		
Dissolved organic carbon (mg C$\cdot$L^{-1})		3.5		3.5	3.4			2.7
Particulate carbon (µg C$\cdot$L^{-1})				534	498			
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		51		44	50			41
Particulate nitrogen (µg N$\cdot$L^{-1})		69		70	60			31
Ammonia (µg N$\cdot$L^{-1})		<4		<4	4			<4
Nitrate (µg N$\cdot$L^{-1})		1		12	5			21
Total phosphorus (µg P$\cdot$L^{-1})		4		6	7			8
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		2	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		810		810	810			970
Total dissolved solids (mg$\cdot$L^{-1})		11						10
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.22	1.17	1.08	1.08	1.26	1.52	1.44	1.01
Glucose turnover time (h)	36	21	23	22	19	18	26	23
Dark bottle glucose turnover time (h)		19		35	24			36
Primary production > 0.2 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})	1.39	1.85	2.82	2.86	0.29	0.00	0.00	0.00
Primary production 0.2-8.0 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		1.26		1.25	0.05			
Primary production > 8.0 µm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		0.59		1.61	0.24			
Total chlorophyll (mg$\cdot$m^{-3})		3.82		5.82	3.71			0.37
Algal numbers (x10$^{8}\cdot$m^{-3})		45			30			
Algal volume (mm$^{3}\cdot$m^{-3})		1120			881			

^{a}during incubation period

Table 143. Physical, chemical and biological data from Long Lake, Station 3, September 9, 1980.

Compensation depth (m) 6.1
Extinction coefficient (k_e) 0.71
Secchi depth (m) 4.0

Surface temperature (°C) 16.4
Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 2.2

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 4.18 [a]
Einsteins$\cdot m^{-2}\cdot d^{-1}$ 37.34
Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 115

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.9			6.6		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			0.99			1.26		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		3.9		3.9	4.0			>7.5
Particulate carbon (µg $C\cdot L^{-1}$)					458			
Dissolved kjeldahl nitrogen (µg $N\cdot L^{-1}$)		54		46	50			30
Particulate nitrogen (µg $N\cdot L^{-1}$)		68			43			
Ammonia (µg $N\cdot L^{-1}$)		<4		<4	<4			<4
Nitrate (µg $N\cdot L^{-1}$)		<1		<1	1			33
Total phosphorus (µg $P\cdot L^{-1}$)		4		5	3			4
Total dissolved phosphorus (µg $P\cdot L^{-1}$)		1		1	1			1
Soluble reactive silicon (µg $Si\cdot L^{-1}$)		750		920	880			980
Total dissolved solids (mg$\cdot L^{-1}$)		11						13
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	0.83	0.92	1.08	1.07	0.77	0.91	1.11	1.00
Glucose turnover time (h)	186	125	75	180	36	48	38	1224
Dark bottle glucose turnover time (h)		536		94	65			10000
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	2.54	2.74	2.38	3.43	0.52	0.05	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		3.28		7.88	4.20			0.37
Algal numbers ($\times 10^8\cdot m^{-3}$)		43			72			
Algal volume ($mm^3\cdot m^{-3}$)		657			1170			

[a] during incubation period

Table 144. Physical, chemical and biological data from Long Lake, Station 2, October 7, 1980.

Compensation depth (m) 6.2 Surface temperature ($^{\circ}$C) 13.9 Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.29 [a]
Extinction coefficient (k_e) 0.70 Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 3.7 Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 8.37
Secchi depth (m) 3.0 Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 58

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.3		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			1.52			1.55		
Dissolved organic carbon (mg C$\cdot$L^{-1})		3.4		3.2	3.9			3.1
Particulate carbon (μg C$\cdot$L^{-1})		307		242	243			163
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		49		51	24			41
Particulate nitrogen (μg N$\cdot$L^{-1})		40		38	34			25
Ammonia (μg N$\cdot$L^{-1})		5		5	6			7
Nitrate (μg N$\cdot$L^{-1})		5		5	6			42
Total phosphorus (μg P$\cdot$L^{-1})		2		2	1			1
Total dissolved phosphorus (μg P$\cdot$L^{-1})		2		3	2			2
Soluble reactive silicon (μg Si$\cdot$L^{-1})		390		970	840			910
Total dissolved solids (mg$\cdot$L^{-1})		15						14
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.38	1.23	1.59	1.62	0.94	0.91	0.77	0.91
Glucose turnover time (h)	104	48	54	26	46	39	44	240
Dark bottle glucose turnover time (h)		77		51	279			636
Primary production > 0.2 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})	1.74	3.34	1.80	0.87	0.28	0.10	0.03	0.00
Primary production 0.2-8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		2.75		0.71	0.14			
Primary production > 8.0 μm (mg C$\cdot$m$^{-3}\cdot$h^{-1})		0.59		0.16	0.14			
Total chlorophyll (mg$\cdot$m^{-3})		3.55		3.93	3.93			2.09
Algal numbers (x10$^{8}\cdot$m^{-3})		68			43			
Algal volume (mm$^{3}\cdot$m^{-3})		933			633			

[a] during incubation period

Table 145. Physical, chemical and biological data from Long Lake, Station 3, October 7, 1980.

Compensation depth (m) 6.3
Extinction coefficient (k_e) 0.68
Secchi depth (m) 3.0

Surface temperature (°C) 13.7
Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 6.2

Einsteins$\cdot m^{-2}\cdot h^{-1}$ 1.19[a]
Einsteins$\cdot m^{-2}\cdot d^{-1}$ ____
Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 23

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.4		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			1.50			1.61		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		3.5		3.3	3.3			3.2
Particulate carbon (µg C$\cdot L^{-1}$)		242		234	245			156
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		52		35	76			43
Particulate nitrogen (µg N$\cdot L^{-1}$)		34		34	36			22
Ammonia (µg N$\cdot L^{-1}$)		10		5	5			8
Nitrate (µg N$\cdot L^{-1}$)		7		6	8			54
Total phosphorus (µg P$\cdot L^{-1}$)		1		<1	<1			<1
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		1		1	1			<1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		1040		880	1010			1000
Total dissolved solids (mg$\cdot L^{-1}$)		14						15
Bacteria numbers ($\times 10^6\cdot mL^{-1}$)	0.86	0.77	0.83	0.88	1.00	1.13	1.40	0.85
Glucose turnover time (h)	209	75	110	104	118	167	131	1649
Dark bottle glucose turnover time (h)		31		51				367
Total primary production (mg C$\cdot m^{-3}\cdot h^{-1}$)	1.68	1.26	0.64	0.27	0.06	0.01	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.85		2.87	1.32			0.27
Algal numbers ($\times 10^8\cdot m^{-3}$)		97			84			
Algal volume ($mm^3\cdot m^{-3}$)		853			851			

[a] during incubation period

Table 146. Physical, chemical and biological data from Long Lake, Station 2, November 18, 1980.

Compensation depth (m) 6.1 Surface temperature (^{o}C) 8.8 Einsteins·m^{-2}·h^{-1} 0.18 [a]

Extinction coefficient (k_e) 0.70 Zooplankton biomass (mg dry wt.·m^{-3}) 3.5 Einsteins·m^{-2}·d^{-1} 1.15

Secchi depth (m) 4.5 Daily primary production (mg C·m^{-2}·d^{-1}) 28

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.3		
Dissolved inorganic carbon (mg C·L^{-1})			1.80			1.53		
Dissolved organic carbon (mg C·L^{-1})		3.6		3.4	4.1			5.3
Particulate carbon (μg C·L^{-1})		206		281	276			314
Dissolved kjeldahl nitrogen (μg N·L^{-1})		56		37	52			45
Particulate nitrogen (μg N·L^{-1})		34		48	31			42
Ammonia (μg N·L^{-1})		16		14	13			13
Nitrate (μg N·L^{-1})		30		30	30			30
Total phosphorus (μg P·L^{-1})		2		2	2			2
Total dissolved phosphorus (μg P·L^{-1})		2		2	1			2
Soluble reactive silicon (μg Si·L^{-1})		850		850	850			870
Total dissolved solids (mg·L^{-1})		46						137
Bacteria numbers (x10^{6}·mL^{-1})	1.40	1.00	1.61	1.06	1.22	1.38	0.86	0.91
Glucose turnover time (h)	446	128	210	172	86	175	256	217
Dark bottle glucose turnover time (h)		90		262	164			184
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	1.87	1.36	0.66	0.51	0.18	0.06	0.00	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		1.20		0.49	0.18			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.16		0.02	0.00			
Total chlorophyll (mg·m^{-3})		0.85		0.71	0.71			0.42
Algal numbers (x10^{8}·m^{-3})		61			23			
Algal volume (mm^{3}·m^{-3})		338			253			

[a] during incubation period

Table 147. Physical, chemical and biological data from Long Lake, Station 3, November 18, 1980.

Compensation depth (m) 6.7

Extinction coefficient (k_e) 0.64

Secchi depth (m) 4.5

Surface temperature (°C) 9.2

Zooplankton biomass (mg dry wt.·m^{-3}) 6.0

Einsteins·m^{-2}·h^{-1} 0.22[a]

Einsteins·m^{-2}·d^{-1} 1.15

Daily primary production (mg C·m^{-2}·d^{-1}) 25

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.3			6.3		
Dissolved inorganic carbon (mg C·L^{-1})			1.64			1.58		
Dissolved organic carbon (mg C·L^{-1})		4.2		4.0	3.7			3.7
Particulate carbon (µg C·L^{-1})		322		326	315			406
Dissolved kjeldahl nitrogen (µg N·L^{-1})		20		10	10			30
Particulate nitrogen (µg N·L^{-1})		42		43	45			51
Ammonia (µg N·L^{-1})		10		10	10			12
Nitrate (µg N·L^{-1})		33						27
Total phosphorus (µg P·L^{-1})		2		3	2			2
Total dissolved phosphorus (µg P·L^{-1})		2		2	2			1
Soluble reactive silicon (µg Si·L^{-1})		820		830	830			840
Total dissolved solids (mg·L^{-1})		132						134
Bacteria numbers (x10^6·mL^{-1})	0.86	0.80		1.71	1.37	1.16		1.23
Glucose turnover time (h)	808	96	187	149	217	152	186	170
Dark bottle glucose turnover time (h)		286		654	288			1434
Total primary production (mg C·m^{-3}·h^{-1})	1.47	1.06	0.99	0.73	0.25	0.16	0.00	0.00
Total chlorophyll (mg·m^{-3})		0.58		0.60	0.60			0.58
Algal numbers (x10^8·m^{-3})		55			120			
Algal volume (mm^3·m^{-3})		165			194			

[a] during incubation period

Table 148. Physical, chemical and biological data from Lowe Lake, May 1, 1980.

Compensation depth (m) 7.5 Surface temperature (°C) 4.6 Einsteins·m^{-2}·h^{-1} ____[a]

Extinction coefficient (k_e) 0.57 Zooplankton biomass (mg dry wt.·m^{-3}) 3.0 Einsteins·m^{-2}·d^{-1} ____

Secchi depth (m) 7.0 Daily primary production (mg C·m^{-2}·d^{-1}) ____

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.7			5.8		
Dissolved inorganic carbon (mg C·L^{-1})			0.47			0.53		
Dissolved organic carbon (mg C·L^{-1})		2.0		2.2	1.8			2.1
Particulate carbon (μg C·L^{-1})		192		142	115			116
Dissolved kjeldahl nitrogen (μg N·L^{-1})		52		66	56			43
Particulate nitrogen (μg N·L^{-1})		23		19	17			16
Ammonia (μg N·L^{-1})		6		5	5			5
Nitrate (μg N·L^{-1})		21		21	20			19
Total phosphorus (μg P·L^{-1})		2		<1	1			1
Total dissolved phosphorus (μg P·L^{-1})		2		<1	1			2
Soluble reactive silicon (μg Si·L^{-1})		500		500	510			460
Total dissolved solids (mg·L^{-1})					8			
Bacteria numbers (x10^6·mL^{-1})	0.76	0.76	0.57	0.76	0.57	0.76	0.74	0.90
Glucose turnover time (h)	191	217	219	314	270	171	260	425
Dark bottle glucose turnover time (h)		282		709	685			475
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	0.48	0.33	0.20	0.08	0.02	0.00	0.00	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		0.25		0.06	0.01			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.08		0.02	0.01			
Total chlorophyll (mg·m^{-3})		0.57		0.71	0.40			0.36
Algal numbers (x10^8·m^{-3})		165			104			
Algal volume (mm^3·m^{-3})		96			47			

[a] during incubation period

Table 149. Physical, chemical and biological data from Lowe Lake, May 28, 1980.

Compensation depth (m) 8.3 Surface temperature (^{o}C) 10.6 Einsteins·$m^{-2}·h^{-1}$ 5.49 [a]
Extinction coefficient (k_e) 0.52 Zooplankton biomass (mg dry wt.·m^{-3}) 6.8 Einsteins·$m^{-2}·d^{-1}$ 48.42
Secchi depth (m) 6.5 Daily primary production (mg C·$m^{-2}·d^{-1}$) 101

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.6			5.8		
Dissolved inorganic carbon (mg C·L^{-1})			1.17			0.61		
Dissolved organic carbon (mg C·L^{-1})		1.4		1.4	1.7			
Particulate carbon (μg C·L^{-1})		195		170	163			156
Dissolved kjeldahl nitrogen (μg N·L^{-1})		55		34	24			9
Particulate nitrogen (μg N·L^{-1})		37		31	28			23
Ammonia (μg N·L^{-1})		11		11	11			9
Nitrate (μg N·L^{-1})		16		16	15			18
Total phosphorus (μg P·L^{-1})		3		3	3			3
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	1			1
Soluble reactive silicon (μg Si·L^{-1})		490		490	500			500
Total dissolved solids (mg·L^{-1})					8			
Bacteria numbers (x10^{6}·mL^{-1})	0.99	0.91	0.82	1.10	1.00	0.98	0.66	0.57
Glucose turnover time (h)	148	105	128	111	126	286	479	292
Dark bottle glucose turnover time (h)		50		88	157			334
Primary production > 0.2 μm (mg C·$m^{-3}·h^{-1}$)	4.38	2.75	2.48	1.72	0.46	0.10	0.05	0.00
Primary production 0.2-8.0 μm (mg C·$m^{-3}·h^{-1}$)		2.13		1.46	0.34			
Primary production > 8.0 μm (mg C·$m^{-3}·h^{-1}$)		0.62		0.26	0.12			
Total chlorophyll (mg·m^{-3})		1.70		1.44	1.86			0.17
Algal numbers (x10^{8}·m^{-3})		97			68			
Algal volume (mm^{3}·m^{-3})		104			58			

[a] during incubation period

Table 150. Physical, chemical and biological data from Lowe Lake, June 27, 1980.

Compensation depth (m) 9.1	Surface temperature (^{o}C) 17.4	Einsteins·m^{-2}·h^{-1} 4.10 [a]	
Extinction coefficient (k_e) 0.47	Zooplankton biomass (mg dry wt.·m^{-3}) 65.2	Einsteins·m^{-2}·d^{-1} 38.24	
Secchi depth (m) 5.0	Daily primary production (mg C·m^{-2}·d^{-1}) 112		

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.1			5.7		
Dissolved inorganic carbon (mg C·L^{-1})			0.43			0.77		
Dissolved organic carbon (mg C·L^{-1})		0.9		1.0	1.4			1.8
Particulate carbon (µg C·L^{-1})		208		277	206			156
Dissolved kjeldahl nitrogen (µg N·L^{-1})		64		82	56			33
Particulate nitrogen (µg N·L^{-1})		50		53	51			35
Ammonia (µg N·L^{-1})		6		<4	<4			11
Nitrate (µg N·L^{-1})		5		5	4			19
Total phosphorus (µg P·L^{-1})		2		2	2			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		1	1			1
Soluble reactive silicon (µg Si·L^{-1})		350		370	390			410
Total dissolved solids (mg·L^{-1})					20			
Bacteria numbers (x10^{6}·mL^{-1})	1.81	2.08	2.43	2.16	1.85	1.51	1.04	0.88
Glucose turnover time (h)	26	18	17	17	19	32	47	158
Dark bottle glucose turnover time (h)		18		20	21			
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	4.88	4.05	2.26	1.30	0.56	0.01	0.00	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})		3.29		0.92	0.40			
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})		0.76		0.38	0.16			
Total chlorophyll (mg·m^{-3})		2.36		2.60	2.54			0.46
Algal numbers (x10^{8}·m^{-3})		111			157			
Algal volume (mm^{3}·m^{-3})		335			309			

[a] during incubation period

Table 151. Physical, chemical and biological data from Lowe Lake, July 24, 1980.

Compensation depth (m) 8.3 Surface temperature (^{o}C) 17.2 Einsteins·m^{-2}·h^{-1} 1.69 [a]
Extinction coefficient (k_e) 0.52 Zooplankton biomass (mg dry wt.·m^{-3}) 29.3 Einsteins·m^{-2}·d^{-1} 17.47
Secchi depth (m) 7.5 Daily primary production (mg C·m^{-2}·d^{-1}) 88

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			6.0		
Dissolved inorganic carbon (mg C·L^{-1})			0.52			0.60		
Dissolved organic carbon (mg C·L^{-1})		3.9		5.6	4.1			4.1
Particulate carbon (μg C·L^{-1})		237		231	293			142
Dissolved kjeldahl nitrogen (μg N·L^{-1})		158		101	106			135
Particulate nitrogen (μg N·L^{-1})		43		48	49			20
Ammonia (μg N·L^{-1})		16		15	16			19
Nitrate (μg N·L^{-1})		3		<1	<1			19
Total phosphorus (μg P·L^{-1})		3		<1	<1			<1
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	<1			1
Soluble reactive silicon (μg Si·L^{-1})		360		360	370			370
Total dissolved solids (mg·L^{-1})					20			
Bacteria numbers (x10^{6}·mL^{-1})	1.43	1.74	1.46	1.77	1.34	1.22	1.04	0.54
Glucose turnover time (h)	28	19	23	20	23	24	105	292
Dark bottle glucose turnover time (h)		34		33	148			92
Primary production > 0.2 μm (mg C·m^{-3}·h^{-1})	4.45	2.96	1.40	0.77	0.22	0.02	0.00	0.00
Primary production 0.2-8.0 μm (mg C·m^{-3}·h^{-1})		2.72		0.73	0.19			
Primary production > 8.0 μm (mg C·m^{-3}·h^{-1})		0.24		0.04	0.03			
Total chlorophyll (mg·m^{-3})		2.39		2.20	2.09			0.38
Algal numbers (x10^{8}·m^{-3})		221			139			
Algal volume (mm^{3}·m^{-3})		152			101			

[a] during incubation period

Table 152. Physical, chemical and biological data from Lowe Lake, August 20, 1980.

Compensation depth (m) 7.8 Surface temperature (^{o}C) 16.0 Einsteins·$m^{-2}·h^{-1}$ 3.97[a]

Extinction coefficient (k_e) 0.56 Zooplankton biomass (mg dry wt.·m^{-3}) 50.0 Einsteins·$m^{-2}·d^{-1}$ 39.83

Secchi depth (m) 6.5 Daily primary production (mg C·$m^{-2}·d^{-1}$) 115

Depth (m)	0	1	2	3	5	7.5	10	20
pH						6.0		
Dissolved inorganic carbon (mg C·L^{-1})						0.55		
Dissolved organic carbon (mg C·L^{-1})		5.2			5.5			>7.5
Particulate carbon (μg C·L^{-1})		299		310				219
Dissolved kjeldahl nitrogen (μg N·L^{-1})		54		60	53			45
Particulate nitrogen (μg N·L^{-1})		39		45				17
Ammonia (μg N·L^{-1})		11		9	12			9
Nitrate (μg N·L^{-1})		13		8	8			24
Total phosphorus (μg P·L^{-1})		3		3	4			2
Total dissolved phosphorus (μg P·L^{-1})		3		3	4			1
Soluble reactive silicon (μg Si·L^{-1})		590		590	610			500
Total dissolved solids (mg·L^{-1})					12			
Bacteria numbers (x10^{6}·mL^{-1})	1.49	1.68	1.47	1.65	1.28	1.43	1.44	0.88
Glucose turnover time (h)	89	58	35	23	39	84	71	393
Dark bottle glucose turnover time (h)		56		54	49			
Primary production > 0.2 μm (mg C·$m^{-3}·h^{-1}$)	2.70	2.83	2.26	2.06	0.66	0.12	0.02	0.00
Primary production 0.2-8.0 μm (mg C·$m^{-3}·h^{-1}$)		2.62		1.83	0.57			
Primary production > 8.0 μm (mg C·$m^{-3}·h^{-1}$)		0.21		0.23	0.09			
Total chlorophyll (mg·m^{-3})		1.20		1.44	2.70			0.54
Algal numbers (x10^{8}·m^{-3})		143			93			
Algal volume ($mm^{3}·m^{-3}$)		101			76			

[a] during incubation period

Table 153. Physical, chemical and biological data from Lowe Lake, September 25, 1980.

Compensation depth (m) 6.7 Surface temperature (^{o}C) 14.6 Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.32 [a]

Extinction coefficient (k_e) 0.67 Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 12.8 Einsteins$\cdot m^{-2}\cdot d^{-1}$ 22.57

Secchi depth (m) 6.0 Daily primary production (mg C$\cdot m^{-2}\cdot d^{-1}$) 32

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.0			6.0		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			0.42			0.48		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		5.2		5.6	4.8			5.0
Particulate carbon (µg C$\cdot L^{-1}$)		242		247	244			189
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		69		48	55			67
Particulate nitrogen (µg N$\cdot L^{-1}$)		35		39	34			14
Ammonia (µg N$\cdot L^{-1}$)		4		<4	<4			8
Nitrate (µg N$\cdot L^{-1}$)		6		6	6			23
Total phosphorus (µg P$\cdot L^{-1}$)		4		1	6			4
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1		2	<1			<1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		570		560	560			470
Total dissolved solids (mg$\cdot L^{-1}$)					22			
Bacteria numbers (x$10^{6}\cdot mL^{-1}$)	1.22	1.10	1.17	1.14			1.23	0.84
Glucose turnover time (h)	82	33	24	30	25	23	27	164
Dark bottle glucose turnover time (h)		18		25	30			152
Primary production > 0.2 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)	0.52	0.70	1.22	0.66	0.32	0.23	0.04	0.00
Primary production 0.2-8.0 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)					0.24			
Primary production > 8.0 µm (mg C$\cdot m^{-3}\cdot h^{-1}$)					0.08			
Total chlorophyll (mg$\cdot m^{-3}$)		1.30		1.96	1.96			0.38
Algal numbers (x$10^{8}\cdot m^{-3}$)		145			72			
Algal volume ($mm^{3}\cdot m^{-3}$)		107			78			

[a] during incubation period

Table 154. Physical, chemical and biological data from Lowe Lake, October 24, 1980.

Compensation depth (m) 6.1 Surface temperature (°C) 11.1 Einsteins·m^{-2}·h^{-1} 0.80 [a]

Extinction coefficient (k_e) 0.69 Zooplankton biomass (mg dry wt.·m^{-3}) 24.2 Einsteins·m^{-2}·d^{-1} 6.08

Secchi depth (m) 4.5 Daily primary production (mg C·m^{-2}·d^{-1}) 3

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.4			5.5		
Dissolved inorganic carbon (mg C·L^{-1})			0.12			0.63		
Dissolved organic carbon (mg C·L^{-1})		3.8		4.0	3.9			3.7
Particulate carbon (µg C·L^{-1})		332		271	256			202
Dissolved kjeldahl nitrogen (µg N·L^{-1})		49		91	87			152
Particulate nitrogen (µg N·L^{-1})		55		41	33			29
Ammonia (µg N·L^{-1})		13		18	13			20
Nitrate (µg N·L^{-1})		18		11	11			10
Total phosphorus (µg P·L^{-1})		2		1	2			2
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		530		530	520			540
Total dissolved solids (mg·L^{-1})					7			
Bacteria numbers (x10^6·mL^{-1})	0.92	0.85	0.97	0.82	1.00	0.95	0.94	0.89
Glucose turnover time (h)	93	66	118	69	60	82	79	69
Dark bottle glucose turnover time (h)		89		110	93			300
Primary production > 0.2 µm (mg C·m^{-3}·h^{-1})	0.26	0.12	0.05	0.02	0.01	0.00	0.00	0.00
Primary production 0.2-8.0 µm (mg C·m^{-3}·h^{-1})								
Primary production > 8.0 µm (mg C·m^{-3}·h^{-1})								
Total chlorophyll (mg·m^{-3})		0.84		0.78	0.70			0.64
Algal numbers (x10^8·m^{-3})		65			93			
Algal volume (mm^3·m^{-3})		42			49			

[a] during incubation period

Table 155. Physical, chemical and biological data from Lowe Lake, December 16, 1980.

Compensation depth (m) 6.4

Extinction coefficient (k_e) 0.67

Secchi depth (m) 3.0

Surface temperature (°C) 5.0

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 0.0

Depth (m)	0	1	2	3	5	7.5	10	20
Dissolved organic carbon (mg C$\cdot$L^{-1})		4.6		3.8	4.5			4.2
Particulate carbon (µg C$\cdot$L^{-1})		212		235	255			228
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		71		104	66			64
Particulate nitrogen (µg N$\cdot$L^{-1})		2376		2705	1521			22
Ammonia (µg N$\cdot$L^{-1})		6		9	7			6
Nitrate (µg N$\cdot$L^{-1})		9		8	8			10
Total phosphorus (µg P$\cdot$L^{-1})		2		2	3			3
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		3	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		450		450	450			450
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		0.94		1.10	1.20			0.98
Glucose turnover time (h)		126		87	84			56
Total chlorophyll (mg$\cdot$m^{-3})		0.33		0.24	0.21			0.21
Algal numbers (x10$^{8}\cdot$m^{-3})		198			127			
Algal volume (mm$^{3}\cdot$m^{-3})		124			113			

Table 156. Physical, chemical and biological data from Mercer Lake, May 3, 1980.

Compensation depth (m) 5.6
Surface temperature (°C) 6.5
Extinction coefficient (k_e) 0.74
Zooplankton biomass (mg dry wt.·m^{-3}) 2.1
Secchi depth (m) 5.0

Depth (m)	1	3	5	20
pH	6.2		6.2	
Dissolved inorganic carbon (mg C·L^{-1})	1.39		1.52	
Dissolved kjeldahl nitrogen (µg N·L^{-1})	67	42	72	45
Ammonia (µg N·L^{-1})	7	9	6	5
Nitrate (µg N·L^{-1})	12	13	12	14
Total phosphorus (µg P·L^{-1})	3	<1	2	2
Total dissolved phosphorus (µg P·L^{-1})	1	<1	2	<1
Soluble reactive silicon (µg Si·L^{-1})	950	1000	1020	990
Total dissolved solids (mg·L^{-1})			31	
Total chlorophyll (mg·m^{-3})	0.18	0.31	0.32	0.21
Algal numbers (x10^8·m^{-3})	2		2	
Algal volume (mm^3·m^{-3})	28		26	

Table 157. Physical, chemical and biological data from Mercer Lake, June 24, 1980.

Compensation depth (m) 7.4

Extinction coefficient (k_e) 0.60

Secchi depth (m) 6.0

Surface temperature (°C) 15.2

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 3.2

Depth (m)	1	3	5	20
pH	6.3		6.1	
Dissolved inorganic carbon (mg C$\cdot$L^{-1})	2.24		2.02	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	65	65	75	<10
Ammonia (µg N$\cdot$L^{-1})	<4	<4	<4	<4
Nitrate (µg N$\cdot$L^{-1})	<1	<1	<1	10
Total phosphorus (µg P$\cdot$L^{-1})	2	3	2	2
Total dissolved phosphorus (µg P$\cdot$L^{-1})	<1	1	<1	<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})	2280	1550	1490	1430
Total dissolved solids (mg$\cdot$L^{-1})			25	
Total chlorophyll (mg$\cdot$m^{-3})	2.14	2.08	2.02	0.46
Algal numbers (x10$^{8}\cdot$m^{-3})	53		35	
Algal volume (mm$^{3}\cdot$m^{-3})	779		922	

Table 158. Physical, chemical and biological data from Mercer Lake, September 24, 1980.

Compensation depth (m) 4.2

Extinction coefficient (k_e) 1.04

Secchi depth (m) 3.5

Surface temperature (^{o}C) 12.6

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 7.4

Depth (m)	1	3	5	20
pH		6.5		6.3
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		1.69		1.90
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})	37	49	50	53
Ammonia (µg N$\cdot$L^{-1})	<4	<4	10	5
Nitrate (µg N$\cdot$L^{-1})	21	20	21	25
Total phosphorus (µg P$\cdot$L^{-1})	<1	<1	<1	<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})	2	1	3	3
Soluble reactive silicon (µg Si$\cdot$L^{-1})	1600	1620	1630	1600
Total dissolved solids (mg$\cdot$L^{-1})			35	
Total chlorophyll (mg$\cdot$m^{-3})	4.56	4.32	3.16	1.40
Algal numbers (x10$^{8}\cdot$m^{-3})	47		47	
Algal volume (mm$^{3}\cdot$m^{-3})	1808		2561	

Table 159. Physical, chemical and biological data from Mikado Lake, May 1, 1980.

Compensation depth (m) 8.2

Extinction coefficient (k_e) 0.51

Secchi depth (m) 6.0

Surface temperature (°C) 5.1

Zooplankton biomass (mg dry wt.·m^{-3}) 1.4

Einsteins·m^{-2}·h^{-1} ______[a]

Einsteins·m^{-2}·d^{-1} ______

Daily primary production (mg C·m^{-2}·d^{-1}) ______

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.6			5.6		
Dissolved inorganic carbon (mg C·L^{-1})			0.55			0.47		
Dissolved organic carbon (mg C·L^{-1})								
Particulate carbon (μg C·L^{-1})		153		166	173			182
Dissolved kjeldahl nitrogen (μg N·L^{-1})		51		60	41			41
Particulate nitrogen (μg N·L^{-1})		20		24	21			20
Ammonia (μg N·L^{-1})		6		7	5			6
Nitrate (μg N·L^{-1})		16		15	15			16
Total phosphorus (μg P·L^{-1})		1		<1	2			2
Total dissolved phosphorus (μg P·L^{-1})		1		<1	2			<1
Soluble reactive silicon (μg Si·L^{-1})		420		410	380			360
Total dissolved solids (mg·L^{-1})					9			
Bacteria numbers (x10^6·mL^{-1})	1.16	1.30	1.12	1.30	1.32	0.97	0.91	0.89
Glucose turnover time (h)	224	211	153	94	256	302	163	201
Dark bottle glucose turnover time (h)		194		107	153			132
Total primary production (mg C·m^{-3}·h^{-1})	0.35	0.25	0.16	0.09	0.04	0.00	0.00	0.00
Total chlorophyll (mg·m^{-3})		0.62		0.65	0.71			0.59
Algal numbers (x10^8·m^{-3})		30			16			
Algal volume (mm^3·m^{-3})		29			15			

[a] during incubation period

Table 160. Physical, chemical and biological data from Mikado Lake, May 29, 1980.

Compensation depth (m) 8.1

Extinction coefficient (k_e) 0.55

Secchi depth (m) 6.0

Surface temperature (°C) 14.3

Zooplankton biomass (mg dry wt.·m^{-3}) 3.2

Einsteins·m^{-2}·h^{-1} 5.35 [a]

Einsteins·m^{-2}·d^{-1} 49.27

Daily primary production (mg C·m^{-2}·d^{-1}) 45

Depth (m)	0	1	2	3	5	7.5	10	20
pH			5.6			5.6		
Dissolved inorganic carbon (mg C·L^{-1})			0.47			0.50		
Dissolved organic carbon (mg C·L^{-1})		1.3		1.6	1.3			1.4
Particulate carbon (µg C·L^{-1})		258		272	280			227
Dissolved kjeldahl nitrogen (µg N·L^{-1})		55		61	36			25
Particulate nitrogen (µg N·L^{-1})		44		46	45			33
Ammonia (µg N·L^{-1})		9		11	12			13
Nitrate (µg N·L^{-1})		<1		<1	<1			15
Total phosphorus (µg P·L^{-1})		2		2	2			1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		400		400	400			440
Total dissolved solids (mg·L^{-1})					6			
Bacteria numbers (x10^6·mL^{-1})	0.50	0.80	0.61	0.74	0.71	0.85		1.07
Glucose turnover time (h)	1200	592	551	218	142	79	410	129
Dark bottle glucose turnover time (h)		514		208	188			100
Total primary production (mg C·m^{-3}·h^{-1})	0.27	0.23	0.31	0.76	0.98	0.21	0.06	0.00
Total chlorophyll (mg·m^{-3})		1.65		2.03	2.66			0.22
Algal numbers (x10^8·m^{-3})		30			23			
Algal volume (mm^3·m^{-3})		78			45			

[a] during incubation period

Table 161. Physical, chemical and biological data from Mohun Lake, March 20, 1980.

Compensation depth (m) 8.6

Extinction coefficient (k_e) 0.53

Secchi depth (m) 6.0

Surface temperature (°C) 4.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 15.5

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.87[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} _____

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) _____

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.6			6.5			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		2.55			2.55			
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.4	2.5				2.5	
Particulate carbon (µg C$\cdot$L^{-1})		152	149	167			189	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		148	107	59			83	
Particulate nitrogen (µg N$\cdot$L^{-1})		36	36	38			38	
Ammonia (µg N$\cdot$L^{-1})		36	32	40			36	
Nitrate (µg N$\cdot$L^{-1})		37	37	37			39	
Total phosphorus (µg P$\cdot$L^{-1})		5	5	5			5	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		3	2	3			2	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1030	1090	940			1440	
Total dissolved solids (mg$\cdot$L^{-1})				23				
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.71	1.68	1.68			1.92	
Glucose turnover time (h)	387	2050	557	290	481	4747	825	2526
Dark bottle glucose turnover time (h)		145	896	694			2895	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.71	1.07	0.92	0.52	0.26	0.03	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.34	2.50	2.26			2.00	
Algal numbers (x10$^{8}\cdot$m^{-3})		58		38				
Algal volume (mm$^{3}\cdot$m^{-3})		774		763				

[a] during incubation period

Table 162. Physical, chemical and biological data from Mohun Lake, April 17, 1980.

Compensation depth (m) 10.5

Extinction coefficient (k_e) 0.40

Secchi depth (m) 6.0

Surface temperature (^{o}C) 8.3

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 7.4

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 0.78[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.5			6.4			
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		2.35			2.76			
Dissolved organic carbon (mg $C \cdot L^{-1}$)		1.6	1.9	1.8			1.7	
Particulate carbon (μg $C \cdot L^{-1}$)			242	199			121	
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)		84	77	59			66	
Particulate nitrogen (μg $N \cdot L^{-1}$)			38	33			23	
Ammonia (μg $N \cdot L^{-1}$)		39	39	59			51	
Nitrate (μg $N \cdot L^{-1}$)		37	36	38			34	
Total phosphorus (μg $P \cdot L^{-1}$)		3	3	3			2	
Total dissolved phosphorus (μg $P \cdot L^{-1}$)		1	2	2			2	
Soluble reactive silicon (μg $Si \cdot L^{-1}$)		970	950	970			960	
Total dissolved solids (mg$\cdot L^{-1}$)		18					18	
Bacteria numbers ($\times 10^{6} \cdot mL^{-1}$)		1.45	1.02	1.02			1.10	
Glucose turnover time (h)	742	1070	850	1093	689	726	425	1284
Dark bottle glucose turnover time (h)		974	1279	2796			408	
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	1.08	1.12	1.18	0.66	0.52	0.12	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		2.55	2.66	2.71			1.62	
Algal numbers ($\times 10^{8} \cdot m^{-3}$)		54		46				
Algal volume ($mm^{3} \cdot m^{-3}$)		761		959				

[a] during incubation period

Table 163. Physical, chemical and biological data from Mohun Lake, May 14, 1980.

Compensation depth (m) 12.3

Extinction coefficient (k_e) 0.35

Secchi depth (m) 7.0

Surface temperature (°C) 14.5

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 28.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 2.11[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} _____

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) _____

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.2			6.3			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		3.10			3.10			
Dissolved organic carbon (mg C$\cdot$L^{-1})			1.9	2.1			1.7	
Particulate carbon (μg C$\cdot$L^{-1})		263	205	238			192	
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		33	54	45			61	
Particulate nitrogen (μg N$\cdot$L^{-1})		42	32	34			32	
Ammonia (μg N$\cdot$L^{-1})		33	34	31			48	
Nitrate (μg N$\cdot$L^{-1})		50	50	48			50	
Total phosphorus (μg P$\cdot$L^{-1})		1	1	1			1	
Total dissolved phosphorus (μg P$\cdot$L^{-1})		<1	<1	1			<1	
Soluble reactive silicon (μg Si$\cdot$L^{-1})		690	720	700			910	
Total dissolved solids (mg$\cdot$L^{-1})		21					21	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.83	1.80				1.66	
Glucose turnover time (h)	110	129	116	171	239	338	263	1992
Dark bottle glucose turnover time (h)		126	341	142			223	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.13	1.38	1.15	1.32	0.81	1.02	0.01	0.00
Total chlorophyll (mg$\cdot$m^{-3})		1.03	1.14	0.56			0.58	
Algal numbers (x10$^{8}\cdot$m^{-3})		39		34				
Algal volume (mm$^{3}\cdot$m^{-3})		282		504				

[a] during incubation period

Table 164. Physical, chemical and biological data from Mohun Lake, June 11, 1980.

Compensation depth (m) 10.8	Surface temperature (°C) 15.7	Einsteins·m^{-2}·h^{-1} 5.11[a]
Extinction coefficient (k_e) 0.40	Zooplankton biomass (mg dry wt.·m^{-3}) 28.0	Einsteins·m^{-2}·d^{-1}
Secchi depth (m) 5.5		Daily primary production (mg C·m^{-2}·d^{-1})

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.7			6.9			
Dissolved inorganic carbon (mg C·L^{-1})		1.92			1.64			
Dissolved organic carbon (mg C·L^{-1})		1.7	1.6	1.7			1.7	
Particulate carbon (µg C·L^{-1})		275	357	311			184	
Dissolved kjeldahl nitrogen (µg N·L^{-1})		93	48	7			23	
Particulate nitrogen (µg N·L^{-1})		60	74	78			24	
Ammonia (µg N·L^{-1})		<4	8	7			7	
Nitrate (µg N·L^{-1})		45	45	43			57	
Total phosphorus (µg P·L^{-1})		1	1	2			2	
Total dissolved phosphorus (µg P·L^{-1})		1	1	1			1	
Soluble reactive silicon (µg Si·L^{-1})		580	580	580			930	
Total dissolved solids (mg·L^{-1})		16					17	
Bacteria numbers (x10^6·mL^{-1})	1.93	2.25	1.78	1.91	2.05	1.89	2.05	1.97
Glucose turnover time (h)	162	125	115	115	92	83		5315
Dark bottle glucose turnover time (h)		104		134				
Total primary production (mg C·m^{-3}·h^{-1})	1.89	2.54	2.77	2.60	2.14	1.16	0.03	0.00
Total chlorophyll (mg·m^{-3})		2.16	1.82	2.32			1.62	
Algal numbers (x10^8·m^{-3})		75		35				
Algal volume (mm^3·m^{-3})		1096		670				

[a] during incubation period

Table 165. Physical, chemical and biological data from Mohun Lake, July 9, 1980.

Compensation depth (m) 9.9

Extinction coefficient (k_e) 0.45

Secchi depth (m) 6.0

Surface temperature (°C) 19.1

Zooplankton biomass (mg dry wt.·m^{-3}) 23.2

Einsteins·m^{-2}·h^{-1} 4.53 [a]

Einsteins·m^{-2}·d^{-1} ______

Daily primary production (mg C·m^{-2}·d^{-1}) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.4			6.6			
Dissolved inorganic carbon (mg C·L^{-1})		1.17			2.14			
Dissolved organic carbon (mg C·L^{-1})		3.6	4.4	3.9			4.6	
Particulate carbon (μg C·L^{-1})		611	475	546			389	
Dissolved kjeldahl nitrogen (μg N·L^{-1})		107	98	64			65	
Particulate nitrogen (μg N·L^{-1})		85	85	86			61	
Ammonia (μg N·L^{-1})		6	10	8			39	
Nitrate (μg N·L^{-1})		6	5	8			58	
Total phosphorus (μg P·L^{-1})		<1	<1	<1			<1	
Total dissolved phosphorus (μg P·L^{-1})		<1	<1	<1			<1	
Soluble reactive silicon (μg Si·L^{-1})		590	950	1270			650	
Total dissolved solids (mg·L^{-1})		23					24	
Bacteria numbers (x10^6·mL^{-1})	0.85	0.71	0.89	0.95	1.04	1.22	1.75	1.22
Glucose turnover time (h)	30	55	40	51	30	55	169	750
Dark bottle glucose turnover time (h)		51	57	94			379	
Total primary production (mg C·m^{-3}·h^{-1})	1.48	1.23	1.18	1.47	1.35	1.34	0.00	0.00
Total chlorophyll (mg·m^{-3})		3.57	2.81	2.83			2.94	
Algal numbers (x10^8·m^{-3})		181		151				
Algal volume (mm^3·m^{-3})		4508		4533				

[a] during incubation period

Table 166. Physical, chemical and biological data from Mohun Lake, August 6, 1980.

Compensation depth (m) 11.0

Extinction coefficient (k_e) 0.40

Secchi depth (m) 6.9

Surface temperature (^oC) 19.5

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 10.2

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 4.19[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ______

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.9			6.8			
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		1.81			1.90			
Dissolved organic carbon (mg $C \cdot L^{-1}$)		3.2	3.4	3.2			2.9	
Particulate carbon ($\mu g\ C \cdot L^{-1}$)		561	430	409			349	
Dissolved kjeldahl nitrogen ($\mu g\ N \cdot L^{-1}$)		115	89	67			143	
Particulate nitrogen ($\mu g\ N \cdot L^{-1}$)		68	51	49			56	
Ammonia ($\mu g\ N \cdot L^{-1}$)		6	<4	8			40	
Nitrate ($\mu g\ N \cdot L^{-1}$)		<1	<1	<1			68	
Total phosphorus ($\mu g\ P \cdot L^{-1}$)		<1	<1	3			<1	
Total dissolved phosphorus ($\mu g\ P \cdot L^{-1}$)		<1	<1	<1			<1	
Soluble reactive silicon ($\mu g\ Si \cdot L^{-1}$)		180	180	180			970	
Total dissolved solids ($mg \cdot L^{-1}$)			20	20				
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	1.29	1.06	1.43	1.26	1.44	1.74	1.77	1.53
Glucose turnover time (h)	33	18	18	22	19	37	138	766
Dark bottle glucose turnover time (h)		25	21	21			8052	
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	1.54	2.01	2.06	1.67	1.42	1.06	0.00	0.00
Total chlorophyll ($mg \cdot m^{-3}$)		2.60	2.14	2.48			3.74	
Algal numbers ($\times 10^8 \cdot m^{-3}$)		134		127				
Algal volume ($mm^3 \cdot m^{-3}$)		4108		3985				

[a] during incubation period

Table 167. Physical, chemical and biological data from Mohun Lake, September 10, 1980.

Compensation depth (m) 10.9

Extinction coefficient (k_e) 0.37

Secchi depth (m) 8.5

Surface temperature (°C) 17.1

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 5.8

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 1.40[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ ____

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) ____

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.3			7.0			
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		1.88			1.84			
Dissolved organic carbon (mg $C \cdot L^{-1}$)		3.7	3.7	3.5			3.7	
Particulate carbon (μg $C \cdot L^{-1}$)		252	248	239			222	
Dissolved kjeldahl nitrogen (μg $N \cdot L^{-1}$)		92	88	90			96	
Particulate nitrogen (μg $N \cdot L^{-1}$)		38	41	40			33	
Ammonia (μg $N \cdot L^{-1}$)		5	<4	<4			45	
Nitrate (μg $N \cdot L^{-1}$)		<1	<1	<1			53	
Total phosphorus (μg $P \cdot L^{-1}$)		4	3	3			3	
Total dissolved phosphorus (μg $P \cdot L^{-1}$)		3	3	4			3	
Soluble reactive silicon (μg $Si \cdot L^{-1}$)		700	700	820			1150	
Total dissolved solids (mg$\cdot L^{-1}$)		20					20	
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	2.15	1.81	1.77	1.58	0.80	0.92	1.06	1.08
Glucose turnover time (h)	36	28	26	34	44	110	448	1497
Dark bottle glucose turnover time (h)		92	135	51			2715	
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	1.48	1.84	1.78	1.46	0.79	0.35	0.00	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		1.49	2.01	1.84			5.14	
Algal numbers ($\times 10^8 \cdot m^{-3}$)		219		254				
Algal volume ($mm^3 \cdot m^{-3}$)		163		306				

[a] during incubation period

Table 168. Physical, chemical and biological data from Mohun Lake, October 8, 1980.

Compensation depth (m) 9.9

Extinction coefficient (k_e) 0.44

Secchi depth (m) 6.0

Surface temperature (°C) 15.0

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 15.9

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.50[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} ______

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		6.6			6.7			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		2.41			2.19			
Dissolved organic carbon (mg C$\cdot$L^{-1})			3.1	3.0			2.9	
Particulate carbon (μg C$\cdot$L^{-1})		273	273	275			282	
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		82	89	89			69	
Particulate nitrogen (μg N$\cdot$L^{-1})		39	43	45			45	
Ammonia (μg N$\cdot$L^{-1})		<4	5	5			69	
Nitrate (μg N$\cdot$L^{-1})		2	<1	2			53	
Total phosphorus (μg P$\cdot$L^{-1})		4	1	3			1	
Total dissolved phosphorus (μg P$\cdot$L^{-1})		2	2	2			2	
Soluble reactive silicon (μg Si$\cdot$L^{-1})		520	790	880			1340	
Total dissolved solids (mg$\cdot$L^{-1})		24					25	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.53	1.50	1.47			1.16	
Glucose turnover time (h)	399	40	59	75	67	96	350	408
Dark bottle glucose turnover time (h)		240	107	112			1254	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.74	3.75	3.04	2.13	0.91	0.48	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})			0.96	6.40			7.30	
Algal numbers (x10$^{8}\cdot$m^{-3})		191		244				
Algal volume (mm$^{3}\cdot$m^{-3})		153		180				

[a] during incubation period

Table 169. Physical, chemical and biological data from Mohun Lake, November 19, 1980.

Compensation depth (m) 10.2
Extinction coefficient (k_e) 0.40
Secchi depth (m) 7.0

Surface temperature (°C) 8.7
Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 13.0

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.41 [a]
Einsteins$\cdot$m$^{-2}\cdot$d^{-1} ______
Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) ______

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.2			7.2			
Dissolved inorganic carbon (mg C$\cdot$L^{-1})		1.65			1.64			
Dissolved organic carbon (mg C$\cdot$L^{-1})		4.9	4.7	4.6			3.6	
Particulate carbon (µg C$\cdot$L^{-1})		270	284	271			294	
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		100	103	113			98	
Particulate nitrogen (µg N$\cdot$L^{-1})		32	38	38			30	
Ammonia (µg N$\cdot$L^{-1})		15	17	14			77	
Nitrate (µg N$\cdot$L^{-1})		14	13	12			52	
Total phosphorus (µg P$\cdot$L^{-1})		2	4	3			4	
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2	4	4			4	
Soluble reactive silicon (µg Si$\cdot$L^{-1})		390	380	370			1020	
Total dissolved solids (mg$\cdot$L^{-1})		19					19	
Bacteria numbers (x10$^{6}\cdot$mL^{-1})		1.86	1.75	2.04			1.25	
Glucose turnover time (h)	690	116	115	84	125	172	863	347
Dark bottle glucose turnover time (h)		43	127	239			308	
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	1.64	1.25	1.24	0.58	0.21	0.12	0.00	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.74	2.94	2.79			4.44	
Algal numbers (x10$^{8}\cdot$m^{-3})		103		70				
Algal volume (mm$^{3}\cdot$m^{-3})		3004		2000				

[a] during incubation period

Table 170. Physical, chemical and biological data from Morice Lake, Station 1, May 27, 1980.

Compensation depth (m) 22.3

Extinction coefficient (k_e) 0.20

Secchi depth (m) 12.0

Surface temperature (^{o}C) 4.3

Zooplankton biomass 9.7 (mg dry wt.$\cdot m^{-3}$)

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 5.18 [a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 43.12

Daily primary production 40 (mg C$\cdot m^{-2} \cdot d^{-1}$)

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.8			6.8		
Dissolved inorganic carbon (mg C$\cdot L^{-1}$)			5.53			5.01		
Dissolved organic carbon (mg C$\cdot L^{-1}$)		0.6		0.5	0.4			0.5
Particulate carbon (µg C$\cdot L^{-1}$)		129		112	111			162
Dissolved kjeldahl nitrogen (µg N$\cdot L^{-1}$)		9		9	8			20
Particulate nitrogen (µg N$\cdot L^{-1}$)		26		19	17			17
Ammonia (µg N$\cdot L^{-1}$)		9		9	8			8
Nitrate (µg N$\cdot L^{-1}$)		28		38	40			36
Total phosphorus (µg P$\cdot L^{-1}$)		<1		1	<1			<1
Total dissolved phosphorus (µg P$\cdot L^{-1}$)		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot L^{-1}$)		1320		1300	1350			1300
Total dissolved solids (mg$\cdot L^{-1}$)					25			
Bacteria numbers ($\times 10^{6} \cdot mL^{-1}$)	0.32	0.31		0.43	0.43	0.44	0.34	0.41
Glucose turnover time (h)	521	491	523	1326	693	499	830	2630
Dark bottle glucose turnover time (h)		1060		1039	1154			
Total primary production (mg C$\cdot m^{-3} \cdot h^{-1}$)	0.16	0.26	0.34	0.34	0.32	0.33	0.29	0.06
Total chlorophyll (mg$\cdot m^{-3}$)		0.59		0.60	0.65			0.66
Algal numbers ($\times 10^{8} \cdot m^{-3}$)		67			57			
Algal volume ($mm^{3} \cdot m^{-3}$)		99			62			

[a] during incubation period

Table 171. Physical, chemical and biological data from Morice Lake, Station 2, May 27, 1980.

Compensation depth (m) 26.3	Surface temperature (°C) 3.9	Einsteins·m^{-2}·h^{-1} 5.21[a]
Extinction coefficient (k_e) 0.17	Zooplankton biomass 4.2 (mg dry wt.·m^{-3})	Einsteins·m^{-2}·d^{-1} 43.12
Secchi depth (m) 11.0		Daily primary production 45 (mg C·m^{-2}·d^{-1})

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.8			6.7		
Dissolved inorganic carbon (mg C·L^{-1})			5.42			5.64		
Dissolved organic carbon (mg C·L^{-1})		0.3		0.5	0.5			0.5
Particulate carbon (µg C·L^{-1})		217		108	101			
Dissolved kjeldahl nitrogen (µg N·L^{-1})		9		23	65			9
Particulate nitrogen (µg N·L^{-1})		32		14	16			
Ammonia (µg N·L^{-1})		9		9	9			9
Nitrate (µg N·L^{-1})		42		47	46			48
Total phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Total dissolved phosphorus (µg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si·L^{-1})		1310		1310	1320			1310
Total dissolved solids (mg·L^{-1})					21			
Bacteria numbers (x10^6·mL^{-1})	0.48	0.63	0.47	0.42	0.36	0.43	0.51	0.39
Glucose turnover time (h)	827	419	566	663	433	368	809	949
Dark bottle glucose turnover time (h)		637		693	765			1081
Total primary production (mg C·m^{-3}·h^{-1})	0.12	0.18	0.24	0.35	0.28	0.24	0.20	0.20
Total chlorophyll (mg·m^{-3})		0.52		0.52	0.46			0.51
Algal numbers (x10^8·m^{-3})		16			13			
Algal volume (mm^3·m^{-3})		61			22			

[a] during incubation period

Table 172. Physical, chemical and biological data from Morice Lake, Station 1, June 25, 1980.

Compensation depth (m) 16.9	Surface temperature (°C) 9.6	Einsteins·m^{-2}·h^{-1} 4.94 [a]
Extinction coefficient (k_e) 0.26	Zooplankton biomass (mg dry wt.·m^{-3}) 17.4	Einsteins·m^{-2}·d^{-1} 57.17
Secchi depth (m) 6.5		Daily primary production (mg C·m^{-2}·d^{-1}) 183

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.1			6.9			
Dissolved inorganic carbon (mg C·L^{-1})		4.37			5.11			
Dissolved organic carbon (mg C·L^{-1})		0.9	0.8	0.7			1.1	
Particulate carbon (μg C·L^{-1})		300	174	182			126	
Dissolved kjeldahl nitrogen (μg N·L^{-1})		43	35	70			21	
Particulate nitrogen (μg N·L^{-1})		45	39	40			35	
Ammonia (μg N·L^{-1})		7	<4	<4			<4	
Nitrate (μg N·L^{-1})		30	30	32			37	
Total phosphorus (μg P·L^{-1})		1	1	1			2	
Total dissolved phosphorus (μg P·L^{-1})		<1	<1	<1			<1	
Soluble reactive silicon (μg Si·L^{-1})		2380	2200	3820			2600	
Total dissolved solids (mg·L^{-1})				25				
Bacteria numbers (x10^{6}·mL^{-1})	0.44	0.55	0.55	0.42	0.50	0.51	0.44	0.53
Glucose turnover time (h)	577	477	305	186	221	313	656	
Dark bottle glucose turnover time (h)		823	383	217			699	
Total primary production (mg C·m^{-3}·h^{-1})	0.49	0.59	0.98	1.46	1.15	1.01	0.04	0.00
Total chlorophyll (mg·m^{-3})		1.08	2.14	2.24			1.90	
Algal numbers (x10^{8}·m^{-3})		48		77				
Algal volume (mm^{3}·m^{-3})		42		85				

[a] during incubation period

Table 173. Physical, chemical and biological data from Morice Lake, Station 2, June 25, 1980.

Compensation depth (m) 17.8

Extinction coefficient (k_e) 0.24

Secchi depth (m) 6.5

Surface temperature (°C) 7.0

Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 17.3

Einsteins$\cdot m^{-2} \cdot h^{-1}$ 5.25[a]

Einsteins$\cdot m^{-2} \cdot d^{-1}$ 57.17

Daily primary production (mg $C \cdot m^{-2} \cdot d^{-1}$) 99

Depth (m)	0	1	3	5	7.5	10	20	30
pH		7.1			7.0			
Dissolved inorganic carbon (mg $C \cdot L^{-1}$)		4.76			5.00			
Dissolved organic carbon (mg $C \cdot L^{-1}$)			0.6	0.5			0.8	
Particulate carbon (µg $C \cdot L^{-1}$)		106	113	149			132	
Dissolved kjeldahl nitrogen (µg $N \cdot L^{-1}$)		33	47	72			30	
Particulate nitrogen (µg $N \cdot L^{-1}$)		31	33	40			33	
Ammonia (µg $N \cdot L^{-1}$)		5	<4	<4			5	
Nitrate (µg $N \cdot L^{-1}$)		35	36	36			39	
Total phosphorus (µg $P \cdot L^{-1}$)		1	1	1			2	
Total dissolved phosphorus (µg $P \cdot L^{-1}$)		1	1	2			1	
Soluble reactive silicon (µg $Si \cdot L^{-1}$)		2470	1470	2700			2130	
Total dissolved solids (mg$\cdot L^{-1}$)				37				
Bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	0.61	0.63	0.48	0.56	0.53	0.57	0.44	0.47
Glucose turnover time (h)	4428	620	637	470	296	500	380	
Dark bottle glucose turnover time (h)		2627	2833	1235			1590	
Total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$)	0.06	0.24	0.38	0.70	0.69	0.60	0.09	0.00
Total chlorophyll (mg$\cdot m^{-3}$)		0.56	1.00	0.66			1.18	
Algal numbers ($\times 10^8 \cdot m^{-3}$)		30		37				
Algal volume ($mm^3 \cdot m^{-3}$)		34		86				

[a] during incubation period

Table 174. Physical, chemical and biological data from Morice Lake, Station 1, July 22, 1980.

Compensation depth (m) 17.1
Extinction coefficient (k_e) 0.25
Secchi depth (m) 6.5
Surface temperature (^{o}C) 11.0
Zooplankton biomass (mg dry wt.$\cdot m^{-3}$) 15.3
Einsteins$\cdot m^{-2}\cdot h^{-1}$ 3.87 [a]
Einsteins$\cdot m^{-2}\cdot d^{-1}$ 27.01
Daily primary production (mg $C\cdot m^{-2}\cdot d^{-1}$) 48

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.0			6.8		
Dissolved inorganic carbon (mg $C\cdot L^{-1}$)			4.59			5.02		
Dissolved organic carbon (mg $C\cdot L^{-1}$)		2.0		1.9	2.2			1.9
Particulate carbon ($\mu g\ C\cdot L^{-1}$)		234		207	217			190
Dissolved kjeldahl nitrogen ($\mu g\ N\cdot L^{-1}$)		216		139	107			120
Particulate nitrogen ($\mu g\ N\cdot L^{-1}$)		24		32	29			24
Ammonia ($\mu g\ N\cdot L^{-1}$)		15		17	16			16
Nitrate ($\mu g\ N\cdot L^{-1}$)		23		24	23			24
Total phosphorus ($\mu g\ P\cdot L^{-1}$)		3		2	1			<1
Total dissolved phosphorus ($\mu g\ P\cdot L^{-1}$)		1		<1	<1			<1
Soluble reactive silicon ($\mu g\ Si\cdot L^{-1}$)		1130		1140	1140			1170
Total dissolved solids ($mg\cdot L^{-1}$)					35			
Bacteria numbers ($\times 10^{6}\cdot mL^{-1}$)		0.71	0.61	0.76	0.65	0.67	0.67	0.65
Glucose turnover time (h)	3187	157	136	272	440	1850	785	790
Dark bottle glucose turnover time (h)		68		770	272			147
Total primary production (mg $C\cdot m^{-3}\cdot h^{-1}$)	0.28	0.42	0.52	0.46	0.58	0.40	0.40	0.04
Total chlorophyll ($mg\cdot m^{-3}$)		0.79		0.94	1.05			1.41
Algal numbers ($\times 10^{8}\cdot m^{-3}$)		71			100			
Algal volume ($mm^{3}\cdot m^{-3}$)		89			143			

[a] during incubation period

Table 175. Physical, chemical and biological data from Morice Lake, Station 2, July 22, 1980.

Compensation depth (m) 14.4
Extinction coefficient (k_e) 0.31
Secchi depth (m) 5.5
Surface temperature (°C) 10.5
Zooplankton biomass (mg dry wt.·m^{-3}) 57.3
Einsteins·m^{-2}·h^{-1} 3.85 [a]
Einsteins·m^{-2}·d^{-1} 27.01
Daily primary production (mg C·m^{-2}·d^{-1}) 32

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.9			7.0		
Dissolved inorganic carbon (mg C·L^{-1})			4.73			4.52		
Dissolved organic carbon (mg C·L^{-1})		1.9		2.3	2.7			
Particulate carbon (μg C·L^{-1})		180		188	187			225
Dissolved kjeldahl nitrogen (μg N·L^{-1})		370		177	190			150
Particulate nitrogen (μg N·L^{-1})		21		29	11			32
Ammonia (μg N·L^{-1})		19		15	15			15
Nitrate (μg N·L^{-1})		24		25	26			31
Total phosphorus (μg P·L^{-1})		<1		1	2			<1
Total dissolved phosphorus (μg P·L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		1130		1150	1140			1160
Total dissolved solids (mg·L^{-1})					28			
Bacteria numbers (x10^6·mL^{-1})	0.55	0.55		0.49	0.54	0.64	0.58	0.64
Glucose turnover time (h)	991	649	468	461	375	486	513	3329
Dark bottle glucose turnover time (h)		626		731	920			2026
Total primary production (mg C·m^{-3}·h^{-1})	0.10	0.28	0.38	0.42	0.52	0.22	0.20	0.00
Total chlorophyll (mg·m^{-3})		1.21		1.20	1.12			1.41
Algal numbers (x10^8·m^{-3})		26			18			
Algal volume (mm^3·m^{-3})		55			28			

[a] during incubation period

Table 176. Physical, chemical and biological data from Morice Lake, Station 1, August 21, 1980.

Compensation depth (m) 15.1

Extinction coefficient (k_e) 0.29

Secchi depth (m) 5.5

Surface temperature (^{o}C) 12.4

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 72.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 3.44[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 39.32

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 158

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.1			7.0		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			4.22			4.47		
Dissolved organic carbon (mg C$\cdot$L^{-1})		3.3		2.3	2.9			>7.5
Particulate carbon (µg C$\cdot$L^{-1})		179		225	186			
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		60		60	48			68
Particulate nitrogen (µg N$\cdot$L^{-1})		27		39	30			
Ammonia (µg N$\cdot$L^{-1})		5		5	5			6
Nitrate (µg N$\cdot$L^{-1})		22		21	23			23
Total phosphorus (µg P$\cdot$L^{-1})		3		3	3			4
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		2	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1520		1810	2570			1370
Total dissolved solids (mg$\cdot$L^{-1})					32			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.77	0.82	0.70	0.80	0.67	0.83	0.83	0.83
Glucose turnover time (h)	679	115	80	154	427	295	232	360
Dark bottle glucose turnover time (h)		904		271	442			3758
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.85	1.51	1.90	1.82	1.61	1.80	1.26	0.06
Total chlorophyll (mg$\cdot$m^{-3})		1.16		1.08	1.04			1.20
Algal numbers (x10$^{8}\cdot$m^{-3})		37			52			
Algal volume (mm$^{3}\cdot$m^{-3})		66			174			

[a] during incubation period

Table 177. Physical, chemical and biological data from Morice Lake, Station 2, August 21, 1980.

Compensation depth (m) 18.8
Extinction coefficient (k_e) 0.23
Secchi depth (m) 6.0

Surface temperature (°C) 10.9
Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 25.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 3.99 [a]
Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 39.32
Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 120

Depth (m)	0	1	2	3	5	7.5	10	20
pH			6.9			7.1		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			4.58			4.25		
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.6		2.8	2.6			2.9
Particulate carbon (µg C$\cdot$L^{-1})		155		166	158			161
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		81		60	36			53
Particulate nitrogen (µg N$\cdot$L^{-1})		25		25	27			22
Ammonia (µg N$\cdot$L^{-1})		7		6	6			10
Nitrate (µg N$\cdot$L^{-1})		24		24	24			28
Total phosphorus (µg P$\cdot$L^{-1})		3		3	3			3
Total dissolved phosphorus (µg P$\cdot$L^{-1})		2		2	2			2
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1770		1150	2390			2750
Total dissolved solids (mg$\cdot$L^{-1})					26			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.83	0.86		0.89	0.80	0.76	0.80	0.74
Glucose turnover time (h)	740	134	86	138	216	120	113	174
Dark bottle glucose turnover time (h)		299		337	7819			1321
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.23	0.57	0.78	0.86	0.92	1.01	0.74	0.06
Total chlorophyll (mg$\cdot$m^{-3})		0.78		0.90	0.98			1.12
Algal numbers (x10$^{8}\cdot$m^{-3})		22			57			
Algal volume (mm$^{3}\cdot$m^{-3})		92			172			

[a] during incubation period

Table 178. Physical, chemical and biological data from Morice Lake, Station 1, September 28, 1980.

Compensation depth (m) 18.8

Extinction coefficient (k_e) 0.23

Secchi depth (m) 8.0

Surface temperature (^{o}C) 10.3

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 30.9

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.43[a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 3.26

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 86

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.1			7.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			4.24			4.41		
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.5		3.2	2.9			5.1
Particulate carbon (µg C$\cdot$L^{-1})		219		205	186			237
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		62		37	37			33
Particulate nitrogen (µg N$\cdot$L^{-1})		30		23	23			28
Ammonia (µg N$\cdot$L^{-1})		<4		<4	<4			<4
Nitrate (µg N$\cdot$L^{-1})		14		12	14			14
Total phosphorus (µg P$\cdot$L^{-1})		1		2	1			<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1070		1060	1060			1060
Total dissolved solids (mg$\cdot$L^{-1})					21			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	1.03		0.30	0.94	0.97	0.73	1.11	
Glucose turnover time (h)	251	135	150	173	154	173	143	223
Dark bottle glucose turnover time (h)		145		110	156			262
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	2.52	1.94	2.26	1.68	0.79	0.45	0.17	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.94		2.00	1.04			1.88
Algal numbers (x10$^{8}\cdot$m^{-3})		212			63			
Algal volume (mm$^{3}\cdot$m^{-3})		374			103			

[a] during incubation period

Table 179. Physical, chemical and biological data from Morice Lake, Station 2, September 28, 1980.

Compensation depth (m) 20.4

Extinction coefficient (k_e) 0.21

Secchi depth (m) 6.0

Surface temperature (^{o}C) 9.7

Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 23.2

Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 0.39 [a]

Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 3.26

Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 60

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.2			7.2		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			4.13			4.27		
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.7		2.8	3.7			2.5
Particulate carbon (µg C$\cdot$L^{-1})		178		181	190			187
Dissolved kjeldahl nitrogen (µg N$\cdot$L^{-1})		34		39	32			53
Particulate nitrogen (µg N$\cdot$L^{-1})		21		25	24			19
Ammonia (µg N$\cdot$L^{-1})		<4		<4	<4			4
Nitrate (µg N$\cdot$L^{-1})		15		15	15			23
Total phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Total dissolved phosphorus (µg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (µg Si$\cdot$L^{-1})		1070		1070	1080			1110
Total dissolved solids (mg$\cdot$L^{-1})					21			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.73	0.88	1.06	0.71	0.91	0.79		0.95
Glucose turnover time (h)	266	168	385	143	136	143	157	248
Dark bottle glucose turnover time (h)		380		140	136			214
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.99	1.57	0.44	1.18	0.43	0.22	0.14	0.00
Total chlorophyll (mg$\cdot$m^{-3})		1.44		1.28	2.02			1.16
Algal numbers (x10$^{8}\cdot$m^{-3})		44			48			
Algal volume (mm$^{3}\cdot$m^{-3})		76			104			

[a] during incubation period

Table 180. Physical, chemical and biological data from Morice Lake, Station 1, October 21, 1980.

Compensation depth (m) 12.9	Surface temperature (°C) 8.7	Einsteins·m^{-2}·h^{-1} 1.67[a]
Extinction coefficient (k_e) 0.32	Zooplankton biomass (mg dry wt.·m^{-3}) 22.4	Einsteins·m^{-2}·d^{-1} 9.75
Secchi depth (m) 5.5		Daily primary production (mg C·m^{-2}·d^{-1}) 33

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.2			7.1		
Dissolved inorganic carbon (mg C·L^{-1})			4.22			4.45		
Dissolved organic carbon (mg C·L^{-1})		3.1		2.8	2.0			5.0
Particulate carbon (μg C·L^{-1})		158		169	169			182
Dissolved kjeldahl nitrogen (μg N·L^{-1})		108		55	64			69
Particulate nitrogen (μg N·L^{-1})		25		26	29			29
Ammonia (μg N·L^{-1})		9		8	8			9
Nitrate (μg N·L^{-1})		17		17	18			19
Total phosphorus (μg P·L^{-1})		2		1	1			
Total dissolved phosphorus (μg P·L^{-1})		2		2	<1			<1
Soluble reactive silicon (μg Si·L^{-1})		1090		1090	1090			1090
Total dissolved solids (mg·L^{-1})					18			
Bacteria numbers (x10^6·mL^{-1})	0.97	1.00	1.04	1.00	1.08	1.07	1.08	1.11
Glucose turnover time (h)	611	296	238	252	435	242	262	380
Dark bottle glucose turnover time (h)		1858		358				784
Total primary production (mg C·m^{-3}·h^{-1})	0.16	0.42	0.54	0.53	0.44	0.35	0.30	0.02
Total chlorophyll (mg·m^{-3})		2.88		2.78	2.68			3.40
Algal numbers (x10^8·m^{-3})		27			112			
Algal volume (mm^3·m^{-3})		194			116			

[a] during incubation period

Table 181. Physical, chemical and biological data from Morice Lake, Station 2, October 21, 1980.

Compensation depth (m) 9.3
Extinction coefficient (k_e) 0.48
Secchi depth (m) 3.0
Surface temperature (°C) 8.2
Zooplankton biomass (mg dry wt.$\cdot$m^{-3}) 21.3
Einsteins$\cdot$m$^{-2}\cdot$h^{-1} 1.60 [a]
Einsteins$\cdot$m$^{-2}\cdot$d^{-1} 9.75
Daily primary production (mg C$\cdot$m$^{-2}\cdot$d^{-1}) 27

Depth (m)	0	1	2	3	5	7.5	10	20
pH			7.1			7.1		
Dissolved inorganic carbon (mg C$\cdot$L^{-1})			4.33			4.36		
Dissolved organic carbon (mg C$\cdot$L^{-1})		2.2		2.4	1.8			1.2
Particulate carbon (μg C$\cdot$L^{-1})		158		144	168			168
Dissolved kjeldahl nitrogen (μg N$\cdot$L^{-1})		55		56	44			61
Particulate nitrogen (μg N$\cdot$L^{-1})		21		21	26			26
Ammonia (μg N$\cdot$L^{-1})		8		9	8			13
Nitrate (μg N$\cdot$L^{-1})		23		23	23			24
Total phosphorus (μg P$\cdot$L^{-1})		2		2	2			2
Total dissolved phosphorus (μg P$\cdot$L^{-1})		<1		<1	<1			<1
Soluble reactive silicon (μg Si$\cdot$L^{-1})		1110		1120	1110			1110
Total dissolved solids (mg$\cdot$L^{-1})					17			
Bacteria numbers (x10$^{6}\cdot$mL^{-1})	0.98	0.89	0.73	0.85	0.82	0.86	0.83	0.86
Glucose turnover time (h)	1700	617	215	849	419	407	355	860
Dark bottle glucose turnover time (h)		1368		718	840			2260
Total primary production (mg C$\cdot$m$^{-3}\cdot$h^{-1})	0.17	0.48	0.66	0.56	0.56	0.21	0.10	0.00
Total chlorophyll (mg$\cdot$m^{-3})		2.04		2.14	2.02			2.02
Algal numbers (x10$^{8}\cdot$m^{-3})		9			11			
Algal volume (mm$^{3}\cdot$m^{-3})		58			95			

[a] during incubation period

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Appendix Table 1. Monthly sampling dates for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			3	24			24			
Babine-1				4			29			
Babine-2				4			29			
Babine-3				4			30			
Babine-4				4			30			
Babine-5				4			30			
Bonilla			2,29	26	23	27	26	22		16
Curtis			2,31	26	23	20	26	22		
Devon			28	27	24	20	25	24		
Eden			3	24			24			
Great Central-1	18	15	16	13	11	8	12	10	22	
Great Central-2	18	15	16	13	11	8	12	10	22	
Henderson	18	15	16	13	11	8	12	10	22	
Hobiton	18	15	16	13	11	8	12	10	22	
Ian-1			3	24			24			
Ian-2			3	24			24			
Kennedy-2	19	16	15	12	10	7	11	9	21	
Kennedy-3	19	16	15	12	10	7	11	9	21	
Kitlope		30	30	28	30	19	23	25		
Long-2	21	19	13	10	8	5	9	7	18	
Long-3	21	19	13	10	8	5	9	7	18	
Lowe			1,28	27	24	20	25	24		16
Mercer			3	24			24			
Mikado			1,29							
Mohun	20	17	14	11	9	6	10	8	19	
Morice-1			27	25	22	21	28	21		
Morice-2			27	25	22	21	28	21		

Appendix Table 2. Monthly values and depth of maximum stability (m) for the 1980 study lakes.

Lake and station	Mar		Apr		May		Jun		Jul	
	Depth	value	Depth	value	Depth	value	Depth	value	Depth	value
Awun					10.0	.002	6.8	.051		
Babine-1							5.5	.028		
Babine-2							11.0	.003		
Babine-3							6.0	.005		
Babine-4							2.5	.004		
Babine-5							0.5	.008		
Bonilla				0	7.0	.022	6.6	.069	8.6	.081
Curtis			13.0	.002	7.2	.043	4.1	.157	5.6	.069
Devon					3.8	.042	5.1	.084	6.0	.119
Eden					17.0	.002	7.6	.063		
Great Central-1		0	7.8	.009	10.4	.051	11.4	.047	7.6	.055
Great Central-2		0	1.2	.005	9.8	.036	7.4	.063	10.3	.081
Henderson		0	2.5	.009	16.0	.089	14.6	.056	16.5	.068
Hobiton		0	15.2	.010	6.2	.048	6.9	.057	7.6	.053
Ian-1					1.0	.007	6.1	.081		
Ian-2					2.0	.006	8.4	.069		
Kennedy-2	23.0	.002	0.2	.018	5.1	.077	6.0	.114	5.1	.091
Kennedy-3	7.5	.002	10.2	.007	9.6	.056	8.8	.054	8.2	.124
Kitlope				0	5.0	.011	1.0	.018	0.1	.078
Long-2		0	16.0	.002	9.2	.036	2.6	.021	10.0	.077
Long-3		0	14.0	.003	7.0	.018	6.8	.026	0.4	.022
Lowe				0	12.5	.016	5.1	.091	8.1	.057
Mercer					2.0	.006	6.2	.066		
Mikado			1.0	.003	3.8	.048				
Mohun		0	4.8	.014	6.2	.046	8.0	.061	8.0	.119
Morice-1						0	3.2	.016	23.0	.013
Morice-2						0	2.2	.009	2.0	.011

Appendix Table 2 Cont'd.

Lake and station	Aug		Sep		Oct		Nov		Dec	
	Depth	value	Depth	value	Depth	value	Depth	value	Depth	value
Awun			10.8	.034						
Babine-1			9.2	.020						
Babine-2			35.2	.043						
Babine-3			29.0	.032						
Babine-4			21.7	.044						
Babine-5			17.0	.044						
Bonilla	9.6	.084	14.2	.048	19.6	.025				0
Curtis	6.9	.084	10.5	.030	17.9	.063				
Devon	8.0	.066	11.8	.042	13.6	.063				
Eden			13.2	.039						
Great Central-1	8.4	.096	11.2	.091	11.2	.084	19.4	.032		
Great Central-2	10.2	.062	11.7	.087	11.0	.069	17.4	.024		
Henderson	16.1	.077	17.2	.119	23.0	.089	28.4	.023		
Hobiton	6.2	.132	9.3	.077	12.0	.077	23.8	.014		
Ian-1			14.6	.042						
Ian-2			18.0	.056						
Kennedy-2	6.2	.136	5.6	.074	15.2	.026	24.8	.012		
Kennedy-3	8.0	.136	13.2	.103	14.1	.051	3.2	.009		
Kitlope	3.6	.059	3.9	.014	21.8	.003				
Long-2	9.8	.066	2.8	.030	19.0	.027	26.5	.013		
Long-3	6.6	.036	0.2	.036	18.7	.044	28.0	.023		
Lowe	11.0	.108	16.0	.051	28.0	.021				0
Mercer			13.0	.010						
Mikado										
Mohun	7.7	.094	9.9	.084	11.0	.077	16.2	.019		
Morice-1	26.6	.032	33.9	.012		0				
Morice-2	27.6	.012	36.1	.007	34.0	.016				

Appendix Table 3. Monthly Secchi depth (m) values for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			4.5	5.0			3.5			
Babine-1				4.0			4.5			
Babine-2				6.5			4.5			
Babine-3				5.5			4.5			
Babine-4				4.5			4.5			
Babine-5				5.5			4.5			
Bonilla		4.5	4.5	3.5	3.5	2.5	2.5	2.5		2.0
Curtis		6.5	6.0	6.0	5.0	4.0	4.0	4.5		
Devon			5.5	4.5	5.5	4.0	4.0	3.0		
Eden			3.5	5.0			3.5			
Great Central-1	12.0	10.0	7.3	7.8	7.5	10.5	12.0	12.5	7.0	
Great Central-2	12.5	11.0	8.0	7.0	8.0	10.0	11.0	8.5	5.5	
Henderson	7.0	5.5	4.5	5.0	6.0	5.0	6.5	5.0	6.0	
Hobiton	7.0	6.0	6.0	6.5	6.5	4.5	6.0	4.0		
Ian-1			3.5	5.0			4.0			
Ian-2			3.5	4.0			3.0			
Kennedy-2	8.5	6.0	5.0	6.0	6.0	6.5	5.0	4.0	4.0	
Kennedy-3	6.0	6.0	5.0	5.5	6.0	5.0	5.5	4.0	5.0	
Kitlope		5.5	6.0	4.5	3.0	2.5	1.0	1.5		
Long-2	5.5	6.5	5.0	5.5	5.0	5.0	3.5	3.0	4.5	
Long-3	6.0	6.0	5.5	5.5	5.5	6.5	4.0	3.0	4.5	
Lowe		7.0	6.5	5.0	7.5	6.5	6.0	4.5		3.0
Mercer			5.0	6.0			3.5			
Mikado			6.0							
Mohun	6.0	6.0	7.0	5.5	6.0	6.9	8.5	6.0	7.0	
Morice-1			12.0	6.5	6.5	5.5	8.0	5.5		
Morice-2			11.0	6.5	5.5	6.0	6.0	3.0		

Appendix Table 4. Monthly mean extinction coefficient (k_e) values for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			0.85	0.71			0.92			
Babine-1				0.80			0.67			
Babine-2				0.62			0.59			
Babine-3				0.60			0.56			
Babine-4				0.55			0.62			
Babine-5				0.59			1.87			
Bonilla		0.91	0.75	0.94	0.95	1.12	1.20	1.24		1.21
Curtis		0.62	0.58	0.57	0.65	0.76	0.82	0.80		
Devon			0.66	0.59	0.60	0.82	0.96	1.06		
Eden			0.96	0.93			1.13			
Great Central-1		0.27	0.29	0.29	0.28	0.27		0.37	0.38	
Great Central-2		0.24	0.28	0.31	0.32	0.28		0.30	0.37	
Henderson		0.36	0.47	0.38	0.45	0.47		0.65	0.56	
Hobiton		0.49	0.52	0.49	0.45	0.62		0.79	0.60	
Ian-1			1.41	0.92			1.18			
Ian-2			1.15	1.16			1.07			
Kennedy-2		0.42	0.49	0.48	0.45	0.48		0.79	0.53	
Kennedy-3	0.50	0.57	0.53	0.59	0.54	0.42		0.64	0.65	
Kitlope		0.54	0.52	0.45	0.48	0.51	1.28	0.98		
Long-2	0.69	1.21	0.63	0.52	0.47	0.51	0.87	0.70	0.70	
Long-3	0.79	1.11	0.63	0.49	0.50	0.48	0.71	0.68	0.64	
Lowe		0.57	0.52	0.47	0.52	0.56	0.67	0.69		0.67
Mercer			0.74	0.60			1.04			
Mikado			0.55							
Mohun	0.53	0.40	0.35	0.40	0.45	0.40	0.37	0.44	0.40	
Morice-1			0.20	0.26	0.25	0.29	0.23	0.32		
Morice-2			0.16	0.24	0.31	0.35	0.21	0.48		

Appendix Table 5. Monthly compensation depth (m) values for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			5.0	6.1			4.8			
Babine-1				5.6			6.3			
Babine-2				7.1			7.2			
Babine-3				7.1			7.4			
Babine-4				5.5			6.9			
Babine-5				5.5			2.5			
Bonilla		4.9	5.8	4.6	4.6	3.9	3.6	3.5		3.5
Curtis		6.7	7.4	7.7	6.7	5.7	5.3	5.4		
Devon			6.6	7.4	7.2	5.3	4.7	4.1		
Eden			4.5	4.7			3.8			
Great Central-1		16.1	14.8	15.2	15.4	16.4		11.5	10.9	
Great Central-2		17.5	14.9	14.1	13.6	15.4		13.6	11.6	
Henderson		11.9	9.4	11.2	9.9	9.2		6.8	7.8	
Hobiton		8.6	8.3	8.7	9.6	7.1		5.9	7.1	
Ian-1			3.1	4.7			3.7			
Ian-2			3.7	3.7			4.2			
Kennedy-2		9.8	8.9	9.3	9.6	9.2		5.3	8.4	
Kennedy-3	8.7	7.7	8.3	8.3	8.3	10.3		6.4	6.5	
Kitlope		8.2	8.5	10.0	9.3	8.9	3.7	4.5		
Long-2	6.4	3.8	6.7	8.0	6.5	8.6	5.2	6.2	6.1	
Long-3	5.9	4.2	6.8	8.8	8.9	9.1	6.1	6.3	6.7	
Lowe		7.5	8.3	9.1	8.3	7.8	6.7	6.1		6.4
Mercer			5.6	7.4			4.2			
Mikado			8.1							
Mohun	8.6	10.5	12.3	10.8	9.9	11.0	10.9	9.9	10.2	
Morice-1			22.3	16.9	17.1	15.1	18.8	12.9		
Morice-2			26.3	17.9	14.4	12.8	20.4	9.3		

Appendix Table 6. Monthly surface temperature (^{o}C) values for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			5.6	16.2			14.5			
Babine-1				12.2			10.9			
Babine-2				5.8			11.4			
Babine-3							10.9			
Babine-4				6.8			11.2			
Babine-5				6.4			11.7			
Bonilla		6.0	12.1	17.6	17.6	15.5	14.7	10.9		5.5
Curtis		5.5	13.8	19.4	17.7	17.3	14.2	11.0		
Devon			12.7	18.1	17.1	16.5	14.0	10.5		
Eden			5.9	15.7			14.0			
Great Central-1	5.3	7.3	14.6	16.2	17.5	21.7	18.9	16.3	9.7	
Great Central-2	6.0	6.2	13.0	15.9	17.6	21.7	19.0	16.2	9.7	
Henderson	5.9	7.8	12.8	14.6	16.4	19.9	17.3	15.3	10.2	
Hobiton	6.7	8.5	14.1	15.7	17.5	20.5	17.3	14.5	9.2	
Ian-1			6.3	15.7			14.3			
Ian-2			6.5	16.4			14.4			
Kennedy-2	6.7	9.2	14.6	15.8	17.7	20.3	17.9	14.6	9.6	
Kennedy-3	7.2	8.3	13.7	16.2	17.5	20.7	17.7	14.7	9.7	
Kitlope		3.3	7.8	10.7	11.5	12.7	10.3	8.0		
Long-2	5.9	5.6	11.2	14.3	16.0	17.4	15.5	13.9	8.8	
Long-3	5.9	6.6	10.6	13.1	16.6	17.7	16.4	13.7	9.2	
Lowe		4.6	10.6	17.4	17.2	16.0	14.6	11.1		5.0
Mercer			6.5	15.2			12.6			
Mikado		5.1	14.3							
Mohun	4.3	8.3	14.5	15.7	19.1	19.5	17.1	15.0	8.7	
Morice-1			4.3	9.6	11.0	12.4	10.3	8.7		
Morice-2			3.9	7.0	10.5	10.9	9.7	8.2		

Appendix Table 7. Monthly mean epilimnetic pH values for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			6.4	6.2			4.9			
Babine-1				7.3			7.6			
Babine-2				7.0			7.6			
Babine-3				7.4			7.7			
Babine-4				7.4			7.6			
Babine-5				7.3			7.6			
Bonilla		5.7	5.7	5.5	6.0	6.2	5.8	5.7		
Curtis		6.0	5.7	5.7	6.4	6.4	6.2	5.6		
Devon			5.7	5.8	6.0	5.8	5.9	5.5		
Eden			6.6	6.1			7.3			
Great Central-1	6.6	6.5	6.9	7.6	7.1	6.9	6.2	7.0	6.9	
Great Central-2	6.6	6.5	7.1	7.6	7.0	6.9	6.2	7.1	6.8	
Henderson	6.6	6.4	6.7	7.3	6.6	6.8	6.2	6.8	6.6	
Hobiton	6.1	6.2	6.6	7.2	6.9	6.9	5.9	6.9	6.6	
Ian-1			6.2	6.1			4.4			
Ian-2			6.4	5.7			3.5			
Kennedy-2	6.7	6.7	7.1	7.5	6.9	6.8	7.1	6.9	7.0	
Kennedy-3	6.6	6.8	7.0	7.4	7.0	6.4	6.4	7.0	6.9	
Kitlope		6.1	6.1	6.2	6.3	6.4	5.9	5.9		
Long-2	6.1	6.0	6.0	5.7	6.6	6.5	6.5	6.3	6.3	
Long-3	6.0	6.1	6.1	5.8	6.4	6.5	6.8	6.3	6.3	
Lowe		5.8	5.7	5.9	6.0	6.0	6.0	5.4		
Mercer			6.2	6.2			3.6			
Mikado		5.6	5.6							
Mohun	6.5	6.4	6.2	6.8	6.5	6.9	7.2	6.7	7.2	
Morice-1			6.8	7.0	6.9	7.1	7.1	7.1		
Morice-2			6.7	7.1	6.9	7.0	7.2	7.1		

Appendix Table 8. Monthly values of mean epilimnetic total alkalinity (mg·L^{-1} $CaCO_3$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			5.10	4.85			4.69			
Babine-1				33.60			35.78			
Babine-2				35.70			36.30			
Babine-3				41.25			35.56			
Babine-4				36.00			35.56			
Babine-5				38.50			36.05			
Bonilla		0.50	0.55	0.50	0.80	1.05	1.12	0.74		
Curtis		1.38	0.79	1.00	1.30	1.43	1.43	0.79		
Devon			0.50	0.75	0.72	0.74	0.57	0.40		
Eden			5.31	5.76			6.13			
Great Central-1	12.58	12.57	12.95	14.70	13.84	13.72	11.85	13.95	12.96	
Great Central-2	11.80	12.38	12.53	14.44	13.47	13.72	12.47	13.83	12.84	
Henderson	6.90	7.01	7.40	8.40	8.36	8.48	6.17	7.95	7.28	
Hobiton	4.70	4.63	4.70	5.91	5.19	6.24	3.83	6.17	5.43	
Ian-1			4.73	3.75			4.33			
Ian-2			6.82	2.55			3.16			
Kennedy-2	11.82	12.41	13.33	14.77	15.22	14.94	14.20	14.24	12.15	
Kennedy-3	8.81	9.00	9.69	10.76	11.54	11.51	10.74	11.29	10.06	
Kitlope		2.22	1.83	1.73	1.63	1.20	1.46	1.41		
Long-2	1.25	2.13	2.69	2.89	3.56	3.78	3.15	2.78	3.08	
Long-3	2.75	2.50	2.91	3.00	3.56	4.12	3.15	2.96	3.03	
Lowe		0.36	0.57	0.60	0.70	0.70	0.52	0.12		
Mercer			2.03	4.00			3.63			
Mikado		0.28	0.28							
Mohun	5.75	5.00	4.87	5.38	4.12	5.93	6.61	6.30	5.68	
Morice-1			14.51	15.08	14.68	14.69	14.60	14.81		
Morice-2			14.69	15.85	14.51	14.57	14.77	14.47		

Appendix Table 9. Monthly values of mean epilimnetic dissolved inorganic carbon (mg C·L^{-1}) for the 1980 study lakes. [a]

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			2.71	2.46			1.61			
Babine-1				9.29			9.20			
Babine-2				10.70			9.27			
Babine-3				10.94			9.05			
Babine-4				9.46			9.15			
Babine-5				10.74			9.17			
Bonilla		0.72	0.75	0.93	0.51	0.69	1.40	1.15		
Curtis		1.32	1.16	1.21	0.53	0.72	0.94	1.38		
Devon			0.70	0.83	0.41	0.79	0.66	0.90		
Eden			2.24	4.15			2.60			
Great Central-1	5.24	5.74	4.04	3.76	3.98	4.25	7.21	4.08	4.17	
Great Central-2	4.52	6.04	3.69	3.68	4.00	4.30	7.90	3.92	4.34	
Henderson	2.95	3.27	2.68	2.25	3.04	2.80	4.21	2.62	2.92	
Hobiton	3.69	2.80	1.89	1.67	1.62	1.91	3.37	2.00	2.12	
Ian-1			3.25	3.16			1.75			
Ian-2			3.44	4.75			1.54			
Kennedy-2	4.61	4.56	3.68	3.86	4.84	4.85	4.27	4.38	3.67	
Kennedy-3	3.42	3.20	2.99	3.35	3.45	5.26	4.67	3.58	3.42	
Kitlope		1.84	1.56	1.09	0.94	0.64	1.48	1.61		
Long-2	2.30	1.98	2.42	3.90	1.50	1.52	1.40	1.54	1.67	
Long-3	2.51	1.99	2.29	3.38	1.64	1.70	1.12	1.56	1.61	
Lowe		0.50	0.89	0.60	0.52	0.55	0.45	0.37		
Mercer			1.46	2.13			1.69			
Mikado		0.51	0.48							
Mohun	2.74	2.55	3.10	1.78	1.66	1.85	1.86	2.30	1.64	
Morice-1			5.27	4.74	4.80	4.34	4.32	4.33		
Morice-2			5.53	4.88	4.63	4.41	4.20	4.34		

[a] These values are calculated from the titration method (APHA 1975).

Appendix Table 10. Monthly values of mean epilimnetic dissolved organic carbon (mg C·L^{-1}) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Babine-1				3.9			6.5			
Babine-2				3.9			7.5			
Babine-3				4.2			7.4			
Babine-4				4.0			7.3			
Babine-5				3.7			7.4			
Bonilla		3.0	2.5	2.4	7.1	5.7	6.7	6.4		6.6
Curtis		1.9	1.7	1.4	4.7	5.5	5.7	5.8		
Devon			1.7	1.7	8.1	5.9	7.5	5.2		
Kennedy-2	2.5	1.6	1.9	0.9	3.7	3.6	2.6	4.1	3.7	
Kennedy-3	2.2	1.6	1.3	1.2	3.6	4.1	2.5	3.6	3.5	
Kitlope		2.1	0.8	0.6	2.3	3.0	3.2	1.9		
Long-2	2.5	3.3	1.9	1.8	3.4	4.5	3.5	3.5	4.1	
Long-3	3.3	2.4	2.0	1.5	3.4	6.2	3.9	3.4	3.9	
Lowe		2.0	1.5	0.8	4.5	5.4	5.2	3.9		4.3
Mohun	2.5	1.8	2.0	1.7	4.0	3.3	3.6	3.1	4.7	
Morice-1			0.5	0.8	2.0	4.0	3.4	3.2		
Morice-2			0.4	0.6	2.3	2.7	2.9	1.9		

Appendix Table 11. Monthly values of mean epilimnetic particulate carbon ($\mu g\ C \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Babine-1				392			246			
Babine-2				156			243			
Babine-3				256			218			
Babine-4				225			260			
Babine-5				167			283			
Bonilla		288	328	542	613	569	618	431		437
Curtis		199	272	402	506	601	442	278		
Devon			298	444	233	410	438	344		
Kennedy-2	105	93	322	350	467	374	434	707	363	
Kennedy-3	105	167	207	255	467	453	233	287	230	
Kitlope		213	158	197	238	190	400	270		
Long-2	107	166	253	260	506	385	516	264	269	
Long-3	123	86	230	222	390	334	458	240	342	
Lowe		141	176	230	254	304	244	265		232
Mikado		169	270							
Mohun	164	182	235	314	544	467	246	274	275	
Morice-1			128	196	212	197	212	170		
Morice-2			142	125	195	160	184	160		

Appendix Table 12. Monthly values of mean epilimnetic dissolved organic nitrogen ($\mu g\ N \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			85	49			53			
Babine-1				129			97			
Babine-2				111			102			
Babine-3				101			95			
Babine-4				173			110			
Babine-5				160			341			
Bonilla		20	83	70	123	75	136	94		94
Curtis		54	53	61	276	83	53	54		
Devon			69	69	172	63	58	99		
Eden			63	61			180			
Great Central-1		14	47	47	64	56	32	48	65	
Great Central-2		10	35	66	37	55	53	61	52	
Henderson		10	75	87	137	87	87	48	76	
Hobiton		10	54	51	72	42	51	45	54	
Ian-1			54	64			137			
Ian-2			68	58			112			
Kennedy-2		13	50	53	123	78	67	53	66	
Kennedy-3		12	62	51	94	77	53	57	60	
Kitlope		41	14	31	63	40	141	57		
Long-2	50	44	36	49	48	67	48	36	34	
Long-3	33	36	25	26	47	83	50	48	14	
Lowe		53	27	65	106	45	56	61		69
Mercer			53	68			42			
Mikado			40							
Mohun	63	27	15	48	82	86	88	83	90	
Morice-1			10	27	130	54	42	66		
Morice-2			27	49	206	50	38	43		

Appendix Table 13. Monthly values of mean epilimnetic particulate nitrogen ($\mu g\ N \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Babine-1				62			38			
Babine-2				24			36			
Babine-3				39			30			
Babine-4				43			34			
Babine-5				34			41			
Bonilla		30	65	90	97	104	91	61		27
Curtis		26	43	66	89	80	63	40		
Devon			47	70	36	53	72	59		
Kennedy-2	18	18	58	71	78	54	74	97	42	
Kennedy-3	20	23	31	60	71	59	43	39	23	
Kitlope		23	25	33	32	34	45	42		
Long-2	19	24	41	41	70	34	66	37	39	
Long-3	16	18	38	44	64	43	56	35	45	
Lowe		19	32	51	47	42	36	40		17
Mikado		21	45							
Mohun	37	31	36	76	85	56	40	42	36	
Morice-1			20	40	27	32	26	27		
Morice-2			21	34	23	25	22	24		

Appendix Table 14. Monthly values of mean epilimnetic ammonia ($\mu g\ N \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			7	10			5			
Babine-1				12			5			
Babine-2				13			5			
Babine-3				10			6			
Babine-4				6			5			
Babine-5				8			5			
Bonilla		13	12	4	18	7	4	13		8
Curtis		9	11	5	15	10	4	14		
Devon			9	4	16	13	6	12		
Eden			8	8			5			
Great Central-1	4	14	10	4	7	7	5	4	8	
Great Central-2	4	14	9	4	9	5	5	4	7	
Henderson	7	114	10	4	9	4	7	6	12	
Hobiton	8	38	10	4	8	10	4	5	11	
Ian-1			9	6			5			
Ian-2			10	7			5			
Kennedy-2	4	14	11	4	8	5	4	4	10	
Kennedy-3	4	17	11	4	8	5	4	4	11	
Kitlope		6	9	4	14	5	5	9		
Long-2	14	17	14	4	7	5	4	5	14	
Long-3	18	18	10	4	10	8	4	7	10	
Lowe		5	11	5	16	11	4	15		7
Mercer			7	4			6			
Mikado		6	11							
Mohun	36	46	33	6	8	6	4	5	15	
Morice-1			9	5	16	5	4	8		
Morice-2			9	4	16	7	4	10		

Appendix Table 15. Monthly values of mean epilimnetic nitrate (μg N·L^{-1}) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			32	2			16			
Babine-1				43			38			
Babine-2				93			55			
Babine-3				76			55			
Babine-4				80			49			
Babine-5				91			39			
Bonilla		8	1	1	1	3	1	4		5
Curtis		22	1	1	1	2	2	14		
Devon			1	1	1	1	1	4		
Eden			43	14			29			
Great Central-1	39	27	1	1	1	1	1	1	3	
Great Central-2	37	31	10	1	1	1	1	1	2	
Henderson	32	103	1	1	1	1	2	1	8	
Hobiton	31	15	2	1	1	1	1	1	10	
Ian-1			33	16			22			
Ian-2			30	17			25			
Kennedy-2	45) 39	30	1	1	1	1	1	1	23	
Kennedy-3	33	26	13	5	1	1	2	2	25	
Kitlope		66	48	10	10	8	26	24		
Long-2	58	41	44	32	4	1	6	5	30	
Long-3	56	43	47	40	12	2	1	7	30	
Lowe		21	16	5	2	10	6	13		9
Mercer			13	1			21			
Mikado		15	1							
Mohun	38	36	49	45	6	1	1	2	13	
Morice-1			35	31	24	22	14	18		
Morice-2			45	36	26	25	17	23		

Appendix Table 16. Monthly values of mean epilimnetic total phosphorus (µg $P \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			1	2			2			
Babine-1				4			1			
Babine-2				3			2			
Babine-3				4			1			
Babine-4				5			1			
Babine-5				4			1			
Bonilla		2	4	8	5	9	4	4		3
Curtis		1	3	3	2	6	3	3		
Devon			3	3	3	5	3	3		
Eden			2	2			1			
Great Central-1	1	2	1	2	1	2	2	1	1	
Great Central-2	1	1	1	2	1	1	2	2	1	
Henderson	1	2	2	3	1	2	5	1	2	
Hobiton	2	3	1	2	1	3	4	2	2	
Ian-1			1	2			1			
Ian-2			2	2			1			
Kennedy-2	1	2	1	3	1	1	7	4	2	
Kennedy-3	2	2	1	2	1	2	4	1	2	
Kitlope		2	2	1	2	8	8	5		
Long-2	4	2	1	1	1	2	6	2	2	
Long-3	4	2	1	1	1	1	4	1	2	
Lowe		2	3	2	2	3	4	2		2
Mercer			2	2			1			
Mikado			2							
Mohun	5	3	1	1	1	2	3	3	3	
Morice-1			1	1	2	3	1	1		
Morice-2			1	1	1	3	1	2		

Appendix Table 17. Monthly values of mean epilimnetic total dissolved phosphorus ($\mu g\ P \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			2				2			
Babine-1				3			1			
Babine-2				3			1			
Babine-3				3			2			
Babine-4				3			2			
Babine-5				3			2			
Bonilla		1	1	2	2	5	1	2		3
Curtis		2	2	1	1	3	2	2		
Devon			2	2	1	3	1	1		
Eden			1	5			2			
Great Central-1	1	2	1	1	1	1	1	1	1	
Great Central-2	1	1	1	1	1	1	1	1	1	
Henderson	1	18	1	1	1	1	3	2	1	
Hobiton	1	2	1	1	1	1	2	1	1	
Ian-1			1	1			1			
Ian-2			1	1			1			
Kennedy-2	2	2	1	1	1	1	5	2	1	
Kennedy-3	2	2	1	1	1	1	2	1	1	
Kitlope		1	1	1	1	1	3	2		
Long-2	2	2	1	1	1	1	2	2	2	
Long-3	2	2	1	1	1	1	1	1	2	
Lowe		2	1	1	1	3	1	1		2
Mercer			1	1			2			
Mikado			1							
Mohun	2	2	1	1	1	1	3	2	4	
Morice-1			1	1	1	2	1	2		
Morice-2			1	1	1	2	1	1		

Appendix Table 18. Monthly values of mean epilimnetic soluble reactive silicon ($\mu g\ Si \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			1747	1973			1780			
Babine-1				1990						
Babine-2				2047						
Babine-3				2040						
Babine-4				2063						
Babine-5				2163						
Bonilla		510	563	440	260	513	507	550		503
Curtis		480	477	357	297	607	577	563		
Devon			467	157	107	497	447	473		
Eden			1690	2467			2037			
Great Central-1	1135	890	887	703	937	660	1327	1700	603	
Great Central-2	1108	900	897	687	1470	650	1080	2070	597	
Henderson	643	640	283	50	137	110	310	460	390	
Hobiton	1348	1260	1110	1080	980	657	717	953	1080	
Ian-1			1330	1957			1680			
Ian-2			1433	1733			1563			
Kennedy-2	955	916	683	670	750	640	1017	863	775	
Kennedy-3	885	848	690	740	823	707	1030	1050	733	
Kitlope		930	823	493	363	600	673	680		
Long-2	1023	998	923	907	753	750	810	733	855	
Long-3	1023	995	877	933	847	763	850	977	830	
Lowe		503	493	370	363	597	563	527		450
Mercer			990	1773			1617			
Mikado		403	400							
Mohun	1125	963	703	580	937	180	740	730	380	
Morice-1			1323	2620	1145	1818	1063	1090		
Morice-2			1313	2213	1145	2015	1083	1113		

Appendix Table 19. Monthly values of mean total dissolved solids ($mg \cdot L^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			27	29			40			
Babine-1				66			64			
Babine-2				73			62			
Babine-3				72			63			
Babine-4				71			59			
Babine-5				68			61			
Bonilla		28	16	40	20	22	18	22		
Curtis		12	11	25	27	18	7	12		
Devon			22	38	16	24	35	17		
Eden			44	36			41			
Ian-1			40	34			42			
Ian-2			36	37			48			
Kennedy-2		27	24	26	26	28	30	29	26	
Kennedy-3		25	20	23	25	24	26	27	22	
Kitlope		24	9	21	15	8	12	9		
Long-2		10	13	15	16	11	11	14	91	
Long-3		12	11	13	17	15	12	14	133	
Lowe		8	8	20	20	12	22	7		
Mercer			31	25			35			
Mikado		9	6							
Mohun		25	18	16	23	20	20	24	19	
Morice-1			24	25	35	32	21	18		
Morice-2			21	37	28	26	21	17		

Appendix Table 20. Monthly values of mean (0-10 m) bacteria numbers ($x10^{6} \cdot mL^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Babine-1				0.82			1.08			
Babine-2				0.95			1.35			
Babine-3				0.79			1.43			
Babine-4				0.94			1.79			
Babine-5				0.82			1.32			
Bonilla		0.82	1.02	2.34	3.37	2.24	2.29	1.86		1.72
Curtis		0.72	0.79	2.05	1.95	1.86	1.49	1.08		
Devon			0.83	1.50	1.49	1.66	2.05	1.26		
Great Central-1	0.51	0.34	0.72	0.79	1.22	1.13	1.35	0.88	1.49	
Great Central-2	0.51	0.46	0.68	0.91	1.35	1.03	1.74	1.34	1.11	
Henderson	0.91	1.09	1.02	1.74	1.98	2.88	2.13	1.98	1.29	
Hobiton	0.73	0.89	0.64	1.89	2.10	1.98	1.72	1.49	1.22	
Kennedy-2	1.15	1.08	1.37	1.77	2.13	2.23	1.83	1.35	1.52	
Kennedy-3	1.07	1.08	1.05	1.44	1.08	2.24	1.72	1.61	1.34	
Kitlope		0.49	0.63	0.48	0.55	0.76	0.94	0.67		
Long-2	1.04	1.06	0.67	0.89	0.71	0.64	1.22	1.20	1.22	
Long-3	1.26	1.04	0.55	0.86	0.89	0.77	0.95	0.98	1.17	
Lowe		0.71	0.92	1.81	1.43	1.49	1.17	0.92		1.08
Mikado		1.15	0.71							
Mohun	1.70	1.16	1.82	1.97	0.95	1.37	1.50	1.50	1.89	
Morice-1			0.38	0.50	0.68	0.79	0.97	1.04		
Morice-2			0.47	0.57	0.56	0.83	0.85	0.85		

Appendix Table 21. Monthly values of mean (0-10 m) light and dark bottle glucose turnover times (h) for the 1980 study lakes.[a]

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Babine-1				328[b]			54			
				671[c]			78			
Babine-2				352			62			
				420			70			
Babine-3				295			195			
				509			301			
Babine-4				279						
				288						
Babine-5				513			181			
				377			115			
Bonilla		131	41	57	25	48	24	40		43
		187	48	47	54	54	27	39		
Curtis		193	82	30	34	22	20	56		
		198	59	26	46	156	15	45		
Devon			33	21	19	23	23	48		
			42	32	22	48		49		
Kennedy-2	445	153	88	40	24	24	22	150	202	
	1597	247	150	30	79	32	58	231	157	
Kennedy-3	396	180	133	54	37	19	45	97	132	
	215	227	155	46	160	19	23	117	206	
Kitlope		217	73	70	100	112	61	93		
		327	72	50	62	219	58	266		
Long-2	459	216	387	127	133	63	23	50	198	
	311	241	340	229	221	89	25	103	157	
Long-3	254	159	201	96	175	46	80	124	201	
	464	129	261	115	595	74	149	40	378	
Lowe		230	168	23	28	52	31	79		97
		515	88	20	55	53	24	97		
Mikado		189	326							
		147	271							
Mohun	815	845	168	126	42	23	40	87	160	
	447	1525	182	119	65	22	86	142	109	
Morice-1			653	320	224	531	165	314		
			1088	411	479	242	135	813		
Morice-2			558	704	538	166	185	529		
			692	2089	747	926	193	940		

[a] Means calculated using the geometric mean ($\log_{10}$).

[b] light bottle values

[c] dark bottle values

Appendix Table 22. Monthly values of mean epilimnetic total chlorophyll (mg·m^{-3}) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			0.41	2.79			2.40			
Babine-1				4.46			2.61			
Babine-2				1.93			2.32			
Babine-3				3.94			2.21			
Babine-4				4.01			2.50			
Babine-5				2.38			3.02			
Bonilla		0.27	4.08	3.59	7.21	6.47	6.35	3.34		0.62
Curtis		0.76	3.11	2.29	4.02	3.58	6.34	1.33		
Devon			3.70	3.81	3.51	3.50	7.40	6.88		
Eden			0.32	1.95			2.13			
Great Central-1	0.62	1.28	1.05	1.40	0.78	0.71	0.74	1.15	2.42	
Great Central-2	0.69	1.06	1.07	1.81	1.70	0.97	0.92	1.85	2.43	
Henderson	0.47	0.81	3.06	4.13	2.67	3.13	4.96	6.40	3.71	
Hobiton	0.77	1.85	1.10	2.04	2.59	2.47	2.37	3.23	1.07	
Ian-1			0.28	2.99			2.80			
Ian-2			0.45	3.40			2.45			
Kennedy-2	0.60	1.11	1.87	3.22	2.90	1.84	5.57	4.99	1.76	
Kennedy-3	0.55	1.07	1.34	2.15	2.24	2.25	2.55	2.49	0.57	
Kitlope		0.14	0.13	1.81	1.60	1.05	1.49	0.90		
Long-2	0.38	0.36	1.49	2.17	1.85	2.45	4.45	3.80	0.67	
Long-3	0.43	1.08	1.33	2.25	1.77	2.01	5.12	2.35	0.59	
Lowe		0.56	1.16	2.50	2.23	1.78	1.74	0.77		0.25
Mercer			0.27	2.08			4.01			
Mikado		0.66	2.11							
Mohun	2.28	2.39	0.91	2.10	3.07	2.41	1.78	3.68	2.82	
Morice-1			0.61	1.82	1.05	1.12	1.97	2.94		
Morice-2			0.50	0.74	1.24	0.95	1.48	2.06		

Appendix Table 23. Monthly values of mean epilimnetic size fractionated chlorophyll (mg·m^{-3}) for Great Central Lake, Station 2.

Size fraction	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
0.8-8.0 µm	0.69	0.13	0.00	0.19	0.33	0.12	0.12	0.13	0.20
8.0-54 µm	0.12	0.93	0.86	0.91	1.01	0.46	0.61	1.27	1.73
> 54 µm	0.12	0.12	0.25	0.81	0.42	0.42	0.19	0.59	0.51

Appendix Table 24. Monthly values of mean (1 and 5 m) total algal numbers (including ultraphytoplankton) ($\times 10^8 \cdot m^{-3}$) for the 1980 study lakes.[a]

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			16	62			458			
Babine-1				65			68			
Babine-2				32			88			
Babine-3				56			62^{b}			
Babine-4				44			83^{b}			
Babine-5				50			95			
Bonilla		39	175	2051^{c}	228	655	412	156		167
Curtis		50	118	178	330	452	202	66		
Devon			114	130	168	138	261	222		
Eden			11	50			28			
Great Central-1	26	20	100	166	106	38	28	47	84	
Great Central-2	5^{d}	13^{d}	40^{e}	84^{e}	57^{e}	50^{e}	20^{e}	14^{e}	34^{e}	
Henderson	127	60^{f}	163	106	208	55^{f}	83	92^{f}	54	
Hobiton	62	40	60	48	50	30^{d}	58^{c}	32^{d}	10^{c}	
Ian-1			13	22			34			
Ian-2			17	114			42			
Kennedy-2	114^{g}	450^{g}	1583^{g}	515^{g}	982^{g}	740^{g}	4215^{g}	6181^{g}	677^{g}	
Kennedy-3	58	67	62	118	80	79	161	156	79	
Kitlope		170	218	123	127	76	25^{g}	73^{g}		
Long-2	21	22	76	41	49	50	38	55	42	
Long-3	120	120	42	73	45	54	58	91	88	
Lowe		134	82	134	180	118	108	79		162
Mercer			2	44			47			
Mikado		23	26							
Mohun	48	50	36	55	166	130	236	218	86	
Morice-1			62	62	86	44	137	70		
Morice-2			14	34	22	40	46^{d}	10^{d}		

[a] values include ultraphytoplankton numbers counted by the Utermöhl (1958) technique.

[b] there was no 1-m sample for this date.

[c] no count for ultraphytoplankton at 1 m.

[d] no count for ultraphytoplankton at 1 or 5 m.

[e] the cyanophyte filament only was included in ultraphytoplankton counts.

[f] no count for ultraphytoplankton at 5 m.

[g] ultraphytoplankton were counted using the epifluorescence technique.

Appendix Table 25. Monthly values of mean (1 and 5 m) total algal volume (including ultraphytoplankton) ($mm^3 \cdot m^{-3}$) for the 1980 study lakes.[a]

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			32	183			208			
Babine-1				1528			171			
Babine-2				125			199			
Babine-3				260			336[b]			
Babine-4				227			568[b]			
Babine-5				140			468			
Bonilla		133	1573	858[c]	933	1032	411	161		141
Curtis		91	540	1665	964	1272	716	120		
Devon			670	2317	1131	1739	3223	2563		
Eden			17	113			170			
Great Central-1	258	280	2249	4917	2829	261	288	95	1157	
Great Central-2	172[d]	526[d]	4359[e]	9965[e]	6615[e]	851[e]	554[e]	608[e]	782[e]	
Henderson	236	462[f]	4224	6589	1534	337[f]	527	2385[f]	616	
Hobiton	117	154	152	395	951	2892[d]	900[c]	511[d]	245[c]	
Ian-1			21	382			265			
Ian-2			83	604			244			
Kennedy-2	48[g]	198[g]	787[g]	1376[g]	811[g]	382[g]	866[g]	1113[g]	214[g]	
Kennedy-3	74	173	344	414	317	929	330	212	53	
Kitlope		68	94	111	236	60	123[g]	169[g]		
Long-2	80	98	159	335	884	937	1000	783	295	
Long-3	157	241	216	317	715	802	913	852	179	
Lowe		72	81	322	126	88	92	45		118
Mercer			27	851			2185			
Mikado		22	61							
Mohun	768	860	393	883	4521	4047	235	166	2502	
Morice-1			81	64	116	120	238	155		
Morice-2			41	60	42	132	90[d]	76[d]		

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[a] values include ultraphytoplankton volume counted by the Utermöhl (1958) technique.

[b] there was no 1-m sample for this date.

[c] no count for ultraphytoplankton at 1 m.

[d] no count for ultraphytoplankton at 1 or 5 m.

[e] the cyanophyte filament only was included in the ultraphytoplankton counts.

[f] no count for ultraphytoplankton at 5 m.

[g] ultraphytoplankton was counted using the epifluorescence technique.

Appendix Table 26. Monthly values of mean (1 and 5 m) ultraphytoplankton numbers ($\times 10^8 \cdot m^{-3}$) counted by the Utermöhl (1958) and epifluorescence techniques for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Bonilla			116[a]	2009	154	613	371	110	
			123[b]	1945	55	397	737	76	
Curtis					208				
					360				
Devon					99				
					82				
Great Central-2[c]					6	33	7	3	
					21	182	30	25	
Kennedy-2				180	101				
	106	431	1537	475	964	712	4004	6072	651
Kitlope				109	109	68			
				<1	3	20	11	7	
Long-2						31	27	46	38
						89	156	217	78
Lowe				119	146	81	92		
				151	231	403	283		
Mohun									45
									309
Morice-1					72	28			
					275	576			
Morice-2					16	25			
					174	447			

[a] counted by the Utermöhl (1958) technique.

[b] counted by the epifluorescence technique.

[c] the cyanophyte filament only was included in the counts.

Appendix Table 27. Monthly values of mean (1 and 5 m) ultraphytoplankton volume ($mm^3 \cdot m^{-3}$) counted by the Utermöhl (1958) and epifluorescence techniques for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Bonilla			30[a]	427	43	248	100	32	
			62[b]	972	28	198	368	38	
Curtis					97				
					100				
Devon					41				
					36				
Great Central-2[c]					7	40	8	4	
					26	224	37	31	
Kennedy-2									
	15	43	154	48	116	82	440	618	65
Kitlope				40	42	25			
				0	2	9	6	4	
Long-2						29	24	53	35
						77	104	214	84
Lowe				36	51	30	33		
				38	42	69	53		
Mohun									13
									31
Morice-1					22	8			
					28	58			
Morice-2					6	8			
					17	45			

[a] counted by the Utermöhl (1958) technique.

[b] counted by the epifluorescence technique.

[c] the cyanophyte filament only was included in the counts.

Appendix Table 28. Monthly values of mean euphotic zone total primary production (mg $C \cdot m^{-3} \cdot h^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Babine-1				0.92			1.89		
Babine-2				0.55			2.25		
Babine-3				1.55			1.50		
Babine-4				1.80			1.65		
Babine-5				0.86			8.71		
Bonilla		0.11	3.06	14.66	5.30	4.50	8.61[a]	0.82[a]	
Curtis		0.49	2.79	1.81	1.78	4.88	2.30	0.21	
Devon			1.87	3.24	0.92	4.48	2.78	0.25	
Kennedy-2	0.13	0.41	1.66	1.44	1.36	3.42	4.92[b]	7.94	0.77
Kennedy-3	0.21	0.58	0.87	1.35	1.01	1.53	2.33[b]	3.12	0.62
Kitlope		0.01	0.02	0.98	0.42[c]	0.36	0.98	0.17	
Long-2	0.12	0.13	1.09	0.85	1.02	1.23	1.98	1.33	0.70
Long-3	0.26	1.00	0.85	0.48	0.70	1.10	2.10	0.53	0.72
Lowe		0.13	1.38	1.32	1.00	1.46	0.68	0.06	
Mikado		0.45	0.59						
Mohun	0.66	0.74	1.40	2.68	2.02	1.98	1.25	2.34	0.76
Morice-1			0.22	0.94	0.40	1.52	0.62	0.44	
Morice-2			0.21	0.51	0.30	0.96	0.31	0.48	

[a] Using gas chromatograph values of total inorganic carbon the values of primary production are changed to 2.73 and 0.06 for September and October, respectively.

[b] values are estimates as there was no compensation depth values for this date.

[c] value is the mean of several values from the week-long survey.

Appendix Table 29. Monthly values of mean euphotic zone size fractionated primary production (mg $C \cdot m^{-3} \cdot h^{-1}$) (0.2-8.0 µm) for the 1980 study lakes.

Lake and station	May	Jun	Jul	Aug	Sep	Oct	Nov
Bonilla	1.98	10.03	3.06	1.89	1.41	0.02	
Long-2	0.81	0.38	0.52	1.03	0.85	1.20	0.62
Lowe	1.31	1.54	1.22	1.68	0.25		
Kitlope		0.54	0.32	0.08	0.66	0.08	

Appendix Table 30. Monthly values of mean euphotic zone size fractionated primary production (mg $C \cdot m^{-3} \cdot h^{-1}$) (> 8.0 µm) for the 1980 study lakes.

Lake and station	May	Jun	Jul	Aug	Sep	Oct	Nov
Bonilla	0.60	0.92	1.42	0.56	0.25	0.01	
Long-2	0.23	0.40	0.38	0.55	0.81	0.30	0.09
Lowe	0.34	0.43	0.10	0.18	0.08		
Kitlope		0.23	0.12[a]	0.35	0.18	0.03	

[a] value is the mean of several values from the week-long survey.

Appendix Table 31. Monthly values of mean euphotic zone size fractionated primary production (mg $C \cdot m^{-3} \cdot h^{-1}$) for Bonilla Lake in 1980.

Size fraction	Jun	Aug
> 0.2 µm	16.81	3.72
0.2-3.0 µm	12.50	1.35
3.0-8.0 µm	2.47	0.91
> 8.0 µm	0.92	0.56

Appendix Table 32. Monthly values of mean daily primary production ($mg\ C \cdot m^{-2} \cdot d^{-1}$) for the 1980 study lakes.

Lake and station	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Babine-1			43			86		
Babine-2			32			116		
Babine-3			138			161		
Babine-4			124			171		
Babine-5			49			324		
Bonilla	4	174	1065	222	211	318	55	
Curtis	33	413	258	108	218	110	14	
Devon		103	272	105	211	106	10	
Kennedy-2			124	232	242	289	293	77
Kennedy-3			110	128	119	169	144	38
Kitlope		2	89	90	26	27	4	
Long-2			137	62	85	91	58	28
Long-3			73	62	83	115	23	25
Lowe		100	112	88	115	32	3	
Mikado		45	89					
Morice-1		40	183	48	158	86	33	
Morice-2		45	99	32	120	60	27	

Appendix Table 33. Monthly values of mean daily primary production per unit of light (mg C·Einstein^{-1}) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Babine-1				1.07			5.10		
Babine-2				0.80			6.85		
Babine-3				4.04			20.16		
Babine-4				3.66			23.24		
Babine-5				1.11			44.10		
Bonilla		0.09	3.46	27.75	7.43	13.00	17.80[a]	7.22[a]	
Curtis		0.81	12.26	5.72	3.54	5.49	6.15	1.83	
Devon			2.10	7.12	3.68	5.29	4.70	1.62	
Kennedy-2	0.98	0.84	3.01	2.33	9.18	5.37	9.88	11.44	9.42
Kennedy-3	1.11	0.98	1.40	2.08	5.34	2.59	5.80	23.36	4.69
Kitlope			0.06	1.95	2.59[b]	1.02	2.16	0.56	
Long-2	0.17	0.21	1.92	5.05	1.36	1.78	2.44	6.41	24.26
Long-3	0.35	1.65	1.22	2.68	1.34	1.73	3.06	2.80	21.64
Lowe			2.08	2.93	4.91	2.87	1.38	0.48	
Mikado			0.90	1.95					
Mohun	6.54	10.01	8.16	5.66	5.56	5.21	9.72	15.40	19.00
Morice-1			0.96	3.20	1.76	6.66	26.80	3.40	
Morice-2			1.04	1.73	1.11	3.08	16.08	2.80	

[a] Using gas chromatograph values of total inorganic carbon the values of primary production per unit of light are changed to 5.64 and 0.55 for September and October, respectively.

[b] value is the mean of several values from the week-long survey.

Appendix Table 34. Monthly values of light intensity during the incubation period (Einsteins$\cdot m^{-2} \cdot h^{-1}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Babine-1				4.83			2.33		
Babine-2				4.85			2.37		
Babine-3				2.72			0.55		
Babine-4				2.71			0.49		
Babine-5				4.25			0.49		
Bonilla		5.81	4.99	2.43	3.29	1.26[a]	1.74	0.40	
Curtis		4.02	1.68	2.07	3.37	5.07	1.98	0.62	
Devon			5.88	3.37	1.81	4.49	2.78	0.63	
Kennedy-2	1.18	4.77	4.90	5.74	0.99	5.87	3.48	3.68	0.69
Kennedy-3	1.66	4.58	5.18	5.41	1.13	6.08	3.62	3.89	0.85
Kitlope			3.55	5.00	1.90[b]	3.10	1.68	1.32	
Long-2	4.43	2.41	3.82	1.34	5.92	5.92	4.23	1.29	0.18
Long-3	4.40	2.55	4.76	1.57	5.58	5.77	4.18	1.19	0.22
Lowe			5.49	4.10	1.69	3.97	3.32	0.80	
Mikado				5.35					
Mohun	0.87	0.78	2.11	5.11	4.53	4.19	1.40	1.50	0.41
Morice-1			5.18	4.94	3.87	3.44	0.43	1.67	
Morice-2			5.21	5.25	3.85	3.99	0.39	1.60	

[a] value is a mean of 6 dates during the week-long survey.

[b] value is a mean of 5 dates during the week-long survey.

Appendix Table 35. Monthly values of zooplankton biomass (mg dry weight$\cdot m^{-3}$) for the 1980 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Awun			7.3	59.3			25.4			
Babine-1				83.6			24.8			
Babine-2				18.1			79.9			
Babine-3				77.3			52.5			
Babine-4				50.5			48.7			
Babine-5				41.2			100.6			
Bonilla		4.5	6.9	16.8	33.5	53.8	110.3	113.6		1.6
Curtis		1.0	2.4	4.7	11.6	11.4	11.3	10.0		
Devon			1.4	4.2	6.1	1.8	5.7	9.9		
Eden			4.4	30.2			27.0			
Great Central-1	3.5	1.7	5.0	7.1	9.6	14.1	3.3	5.1	6.4	
Great Central-2	2.5	1.3	3.4	6.4	5.3	13.2	4.2	6.0	8.3	
Henderson	3.7	4.0	21.7	25.1	8.1	7.1	9.0	10.0	11.2	
Hobiton	11.7	5.6	7.5	8.3	20.5	4.8	7.4	6.8	9.6	
Ian-1			16.4	24.7			42.4			
Ian-2			2.6	20.1			16.3			
Kennedy-2	2.2	2.3	4.2	7.2	13.3	24.9	12.8	5.0	8.0	
Kennedy-3	2.8	3.0	3.2	18.4	9.4	6.7	2.4	11.9	8.4	
Kitlope		2.2	1.8	2.2	2.9	5.7	28.9	3.5		
Long-2	2.9	3.4	6.4	3.7	0.6	3.6	1.8	3.7	3.5	
Long-3	4.8	4.7	3.0	4.0	3.6	2.8	2.2	6.2	6.0	
Lowe		3.0	6.8	65.2	29.3	50.0	12.8	24.2		0.1
Mercer			2.1	3.2			7.4			
Mikado		1.4	3.2							
Mohun	15.5	7.4	28.2	28.0	23.2	10.2	5.8	15.9	13.0	
Morice-1			9.7	17.4	15.3	72.2	30.9	22.4		
Morice-2			4.2	17.3	57.3	25.2	23.2	21.3		

Appendix Table 36. Dates for the beginning and end of the growing season used to compute time-weighted means for the 1980 study lakes.[a]

Lake and station	Beginning		End	
Awun	May 22	4.71[b]	Sep. 24	8.77[c]
Bonilla	May 11	4.36	Oct. 15	9.47
Curtis	May 11	4.35	Oct. 14	9.45
Devon	May 28	4.90[c]	Oct. 11	9.37
Eden	May 14	4.46	Sep. 24	8.77[c]
Great Central-1	Apr. 18	3.59	Nov. 7	10.24
Great Central-2	Apr. 24	3.77	Nov. 7	10.23
Henderson	Apr. 16	3.53	Nov. 7	10.23
Hobiton	Apr. 7	3.24	Oct. 31	9.99
Ian-1	May 12	4.40	Sep. 24	8.77[c]
Ian-2	May 11	4.35	Sep. 24	8.77[c]
Kennedy-2	Apr. 3	3.09	Nov. 1	10.02
Kennedy-3	Apr. 9	3.28	Nov. 2	10.05
Kitlope	Jun. 2	5.05	Aug. 29	7.95
Long-2	Apr. 29	3.94	Oct. 23	9.74
Long-3	Apr. 28	3.91	Oct. 23	9.74
Lowe	May 17	4.54	Oct. 17	9.54
Mercer	May 12	4.39	Sep. 24	8.77[c]
Mohun	Apr. 15	3.49	Oct. 28	9.91
Morice-1	Jun. 17	5.54	Aug. 28	7.92
Morice-2	Jul. 2	6.08	Aug. 28	7.92

[a] The beginning and end of the growing season is defined as the time when the lake surface temperature reaches 8°C in spring and falls to 12°C in the fall.

[b] Each date is transformed to a number for computer entries.

[c] This date is the best estimate for the beginning or end of the growing season as a surface temperature of 8°C or 12°C was not observed due to sampling schedule.

Appendix Table 37. Time-weighted means of depth (m) and value of maximum stability, Secchi depth (m) and mean extinction coefficient (k_e) for the 1980 study lakes.

Lake and station	Maximum stability depth (m)	Maximum stability value	Secchi depth (m)	Mean extinction coefficient (k_e)
Awun	8.5	0.041	4.4	0.80
Bonilla	9.9	0.063	3.3	1.00
Curtis	7.7	0.072	5.0	0.69
Devon	7.6	0.072	4.5	0.75
Eden	10.7	0.047	4.3	1.00
Great Central-1	10.4	0.066	9.6	0.31
Great Central-2	10.1	0.062	8.7	0.30
Henderson	16.8	0.076	5.4	0.50
Hobiton	9.0	0.068	5.6	0.59
Ian-1	8.3	0.058	4.5	1.07
Ian-2	10.7	0.056	3.6	1.13
Kennedy-2	7.2	0.075	5.5	0.55
Kennedy-3	10.2	0.077	5.2	0.55
Kitlope	2.0	0.038	3.8	0.49
Long-2	9.2	0.042	4.5	0.63
Long-3	6.9	0.030	5.0	0.60
Lowe	11.5	0.068	6.2	0.56
Mercer	7.9	0.039	5.0	0.77
Mohun	8.4	0.074	6.6	0.40
Morice-1	20.1	0.020	6.3 } 6.05	0.26 } .29
Morice-2	12.1	0.011	5.8	0.32

Appendix Table 38. Time-weighted means of compensation depth (m), surface temperature (°C), mean epilimnetic pH and mean epilimnetic total alkalinity (mg·L^{-1}CaCO$_3$) for the 1980 study lakes.

Lake and station	Compensation depth (m)	Surface temperature (°C)	Mean epilimnetic pH	Mean epilimnetic total alkalinity (mg·L^{-1}CaCO$_3$)
Awun	5.5	14.7	5.8	4.81
Bonilla	4.4	15.0	5.8	0.80
Curtis	6.5	15.8	6.1	1.20
Devon	6.1	15.8	5.8	0.66
Eden	4.4	13.9	6.6	5.83
Great Central-1	14.4	16.6	6.9	13.40
Great Central-2	14.3	16.5	6.9	13.34
Henderson	9.1	15.2	6.7	7.70
Hobiton	7.7	15.5	6.6	5.25
Ian-1	4.1	14.0	5.5	4.08
Ian-2	3.9	14.4	5.0	3.32
Kennedy-2	8.3 >	15.6 >	7.0 > 6.9	14.11 > 12.4
Kennedy-3	8.2	15.7	6.8	10.70
Kitlope	9.3	10.9	6.2	1.60
Long-2	6.8	14.5	6.3	3.14
Long-3	7.6	14.5	6.3	3.28
Lowe	7.9	14.9	5.9	0.59
Mercer	6.1	13.2	5.3	3.62
Mohun	10.8	16.0	6.7	5.53
Morice-1	16.5 > 15.4	10.9 > 10.55	7.0	14.79 > 14.75
Morice-2	14.3	10.2	7.0	14.70

Appendix Table 39. Time-weighted means of mean epilimnetic dissolved inorganic carbon (mg C·L^{-1}), mean epilimnetic dissolved organic carbon (mg C·L^{-1}), and mean epilimnetic particulate carbon (µg C·L^{-1}) for the 1980 study lakes.

Lake and station	Mean epilimnetic inorganic carbon (mg C·L^{-1})	Mean epilimnetic dissolved organic carbon (mg C·L^{-1})	Mean epilimnetic particulate carbon (µg C·L^{-1})
Awun	2.17		
Bonilla	0.85	5.0	524
Curtis	0.94	3.9	433
Devon	0.69	5.3	374
Eden	3.38		
Great Central-1	4.64		
Great Central-2	4.67		
Henderson	2.97		
Hobiton	2.18		
Ian-1	2.69		
Ian-2	3.48		
Kennedy-2	4.34	2.7	396
Kennedy-3	3.83	2.7	298
Kitlope	1.02	1.7	205
Long-2	2.01	3.2	364
Long-3	1.92	3.5	312
Lowe	0.58	3.6	245
Mercer	1.89		
Mohun	2.11	2.9	331
Morice-1	4.65	2.3	201
Morice-2	4.57	2.3	173

Appendix Table 40. Time-weighted means of mean epilimnetic dissolved organic nitrogen (µg N·L^{-1}), mean epilimnetic particulate nitrogen (µg N·L^{-1}), mean epilimnetic ammonia (µg N·L^{-1}) and mean epilimnetic nitrate (µg N·L^{-1}) for the 1980 study lakes.

Lake and station	Mean epilimnetic dissolved organic nitrogen (µg N·L^{-1})	Mean epilimnetic particulate nitrogen (µg N·L^{-1})	Mean epilimnetic ammonia (µg N·L^{-1})	Mean epilimnetic nitrate (µg N·L^{-1})
Awun	54		8	10
Bonilla	94	87	9	2
Curtis	100	66	9	3
Devon	87	57	10	1
Eden	102		7	23
Great Central-1	47	1	7	3
Great Central-2	50		6	4
Henderson	80		7	3
Hobiton	49		10	3
Ian-1	87		6	20
Ian-2	78		6	21
Kennedy-2	66	64	7	6
Kennedy-3	61	47	7	7
Kitlope	42	32	8	15
Long-2	48	48	7	15
Long-3	47	46	7	18
Lowe	60	41	9	8
Mercer	57		5	9
Mohun	65	53	13	18
Morice-1	75	32	9	25
Morice-2	124	25	11	27

Appendix Table 41. Time-weighted means of mean epilimnetic total phosphorus (μg P·L^{-1}), mean epilimnetic total dissolved phosphorus (μg P·L^{-1}), mean epilimnetic soluble reactive silicon (μg Si·L^{-1}) and mean total dissolved solids (mg·L^{-1}) for the 1980 study lakes.

Lake and station	Mean epilimnetic total phosphorus (ug P·L^{-1})	Mean epilimnetic total dissolved phosphorus (ug P·L^{-1})	Mean epilimnetic soluble reactive silicon (ug Si·L^{-1})	Mean total dissolved solids (mg·L^{-1})
Awun	2		1883	32
Bonilla	6	2	459	23
Curtis	3	2	475	17
Devon	3	2	334	27
Eden	2	3	2224	39
Great Central-1	2	1	1022	
Great Central-2	2	1	1122	
Henderson	4	3	268	
Hobiton	2	1	955	
Ian-1	2	1	1780	37
Ian-2	2	1	1636	40
Kennedy-2	3	2	794 > 818	27 > 25.5
Kennedy-3	2	1	842	24
Kitlope	3	1	526	14
Long-2	2	1	814	13
Long-3	2	1	874	14
Lowe	3	2	485	16
Mercer	2	2	1617	29
Mohun	2	2	659	21
Morice-1	2	1	1766 > 1687	31 > 29.5
Morice-2	2	1	1608	28

Appendix Table 42. Time-weighted means of mean (0-10 m) bacteria numbers ($\times 10^6 \cdot mL^{-1}$), mean (0-10 m) light bottle glucose turnover times (h) and mean (0-10 m) dark bottle glucose turnover times (h) for the 1980 study lakes.

Lake and station	Mean (0-10 m) bacteria numbers ($\times 10^6 \cdot mL^{-1}$)	Mean (0-10 m) light bottle glucose turnover times (h)	Mean (0-10 m) dark bottle glucose turnover times (h)
Bonilla	2.22	43	52
Curtis	1.57	44	68
Devon	1.57	24	39
Great Central-1	1.00		
Great Central-2	1.15		
Henderson	1.87		
Hobiton	1.54		
Kennedy-2	1.68	79	139
Kennedy-3	1.48	79	104
Kitlope	0.59	88	92
Long-2	0.90	125	161
Long-3	0.85	119	203
Lowe	1.34	60	56
Mohun	1.50	143	215
Morice-1	0.67	349	394
Morice-2	0.67	409	968

Appendix Table 43. Time-weighted means of mean epilimnetic total chlorophyll (mg·m^{-3}), mean (1 and 5 m) algal numbers (x10^{8}·m^{-3}) and mean (1 and 5 m) algal volume (mm^{3}·m^{-3}) for the 1980 study lakes.

Lake and station	Mean epilimnetic total chlorophyll (mg·m^{-3})	Mean (1 and 5 m) algal numbers (x10^{8}·m^{-3})	Mean (1 and 5 m) algal volume (mm^{3}·m^{-3})
Awun	2.45	204	180
Bonilla	5.31	419	775
Curtis	3.68	245	954
Devon	4.57	170	1889
Eden	1.82	37	121
Great Central-1	1.05	75	1565
Great Central-2	1.42	41	3370
Henderson	3.86	109	2296
Hobiton	2.22	45	871
Ian-1	2.57	25	295
Ian-2	2.69	76	413
Kennedy-2	3.07 2.54	2079 1092	1083
Kennedy-3	2.01	105	377
Kitlope	1.35	141	142
Long-2	2.67	50	685
Long-3	2.47	62	634
Lowe	1.82	122	136
Mercer	2.50	40	1198
Mohun	2.35	182	1660
Morice-1	1.29 1.18	67	103
Morice-2	1.07	30	80

Appendix Table 44. Time-weighted means of mean (1 and 5 m) ultraphytoplankton numbers ($\times 10^8 \cdot m^{-3}$) and mean (1 and 5 m) ultraphytoplankton volume ($mm^3 \cdot m^{-3}$) counted by the Utermöhl (1958) and epifluorescence techniques for the 1980 study lakes.

Lake and station	Mean (1 and 5 m) ultraphytoplankton numbers ($\times 10^8 \cdot m^{-3}$)	Mean (1 and 5 m) ultraphytoplankton volume ($mm^3 \cdot m^{-3}$)
Bonilla	400[a]	248
	516[b]	258
Great Central-2	15	18
	957	519
Long-2	35	35
	160	138
Lowe	109	38
	296	74
Kennedy-2		
	2151	628
Kitlope		
	15	7

[a] counted by the Utermöhl (1958) technique.

[b] counted by the epifluorescence technique.

Appendix Table 45. Time-weighted means of mean euphotic zone total primary production (mg C·m^{-3}·h^{-1}), mean euphotic zone size fractionated primary production (mg C·m^{-3}·h^{-1}) (0.2 - 8.0 µm and > 8.0 µm) and mean daily primary production (mg C·m^{-2}·d^{-1}) for the 1980 study lakes.

Lake and station	Mean euphotic zone total primary production (mg C·m^{-3}·h^{-1})	Mean euphotic zone primary production (0.2 - 8.0 µm) (mg C·m^{-3}·h^{-1})	Mean euphotic zone primary production (> 8.0 µm) (mg C·m^{-3}·h^{-1})	Mean daily primary production (mg C·m^{-2}·d^{-1})	
Bonilla	6.57	3.59	0.74	360	
Curtis	2.57			200	
Devon	2.70			160	
Kennedy-2	3.05			243	> 188
Kennedy-3	1.58			133	
Kitlope	0.55	0.31	0.22	62	
Long-2	1.23	0.80	0.47	80	
Long-3	0.99			72	
Lowe	1.08	1.28	0.23	82	
Mohun	1.81				
Morice-1	0.89			120	> 97.5
Morice-2	0.58			75	

Appendix Table 46. Time-weighted means of mean daily primary production per unit of light (mg C·Einstein^{-1}), light intensity during the incubation period (Einsteins·m^{-2}·h^{-1}) and zooplankton biomass (mg dry weight·m^{-3}) for the 1980 study lakes.

Lake and station	Mean daily primary production per unit of light (mg C·E^{-1})	Light intensity during incubation period (E·m^{-2}·h^{-1})	Zooplankton biomass (mg dry wt.·m^{-3})
Awun			42.5
Bonilla	12.97	2.70	46.0
Curtis	6.09	2.86	8.2
Devon	4.74	3.36	4.3
Eden			26.0
Great Central-1			6.9
Great Central-2			6.3
Henderson			12.5
Hobiton			8.7
Ian-1			29.7
Ian-2			16.5
Kennedy-2	6.22	4.06	10.1
Kennedy-3	6.26	4.15	7.9
Kitlope	1.65	3.44	3.5
Long-2	3.45	3.71	3.2
Long-3	2.50	3.77	4.1
Lowe	2.71	3.38	32.6
Mercer			4.5
Mohun	8.73	2.86	17.1
Morice-1	3.93	4.02	33.1
Morice-2	2.18	4.02	39.6

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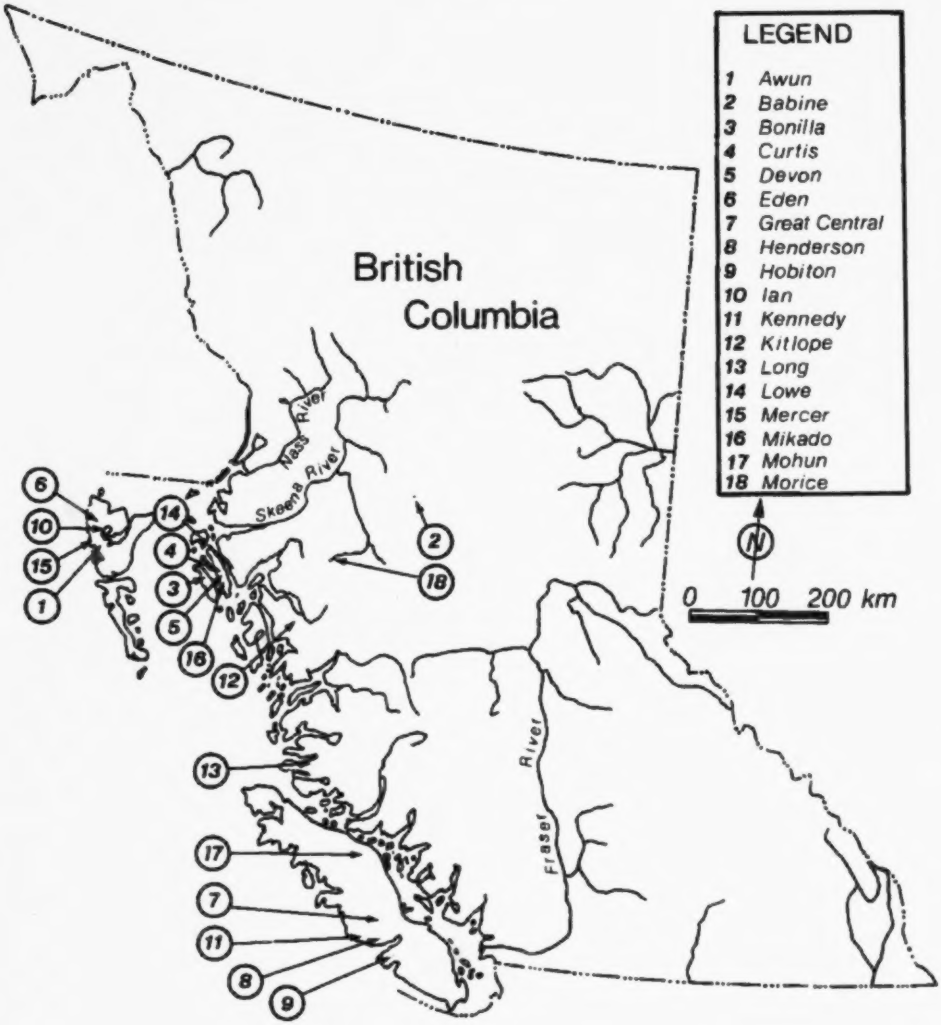
LEGEND
1 Awun
2 Babine
3 Bonilla
4 Curtis
5 Devon
6 Eden
7 Great Central
8 Henderson
9 Hobiton
10 Ian
11 Kennedy
12 Kitlope
13 Long
14 Lowe
15 Mercer
16 Mikado
17 Mohun
18 Morice
British Columbia
Nass River
Skeena River
Fraser River
N
0 100 200 km
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Fig. 1. Map of British Columbia showing locations of 1980 study lakes.

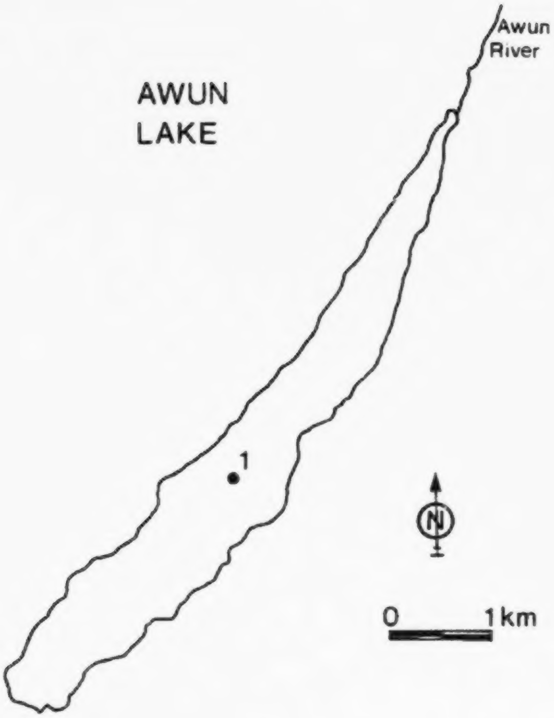
AWUN
LAKE
Awun
River
1
N
0
1km

Fig. 2. Map showing station location at Awun Lake.

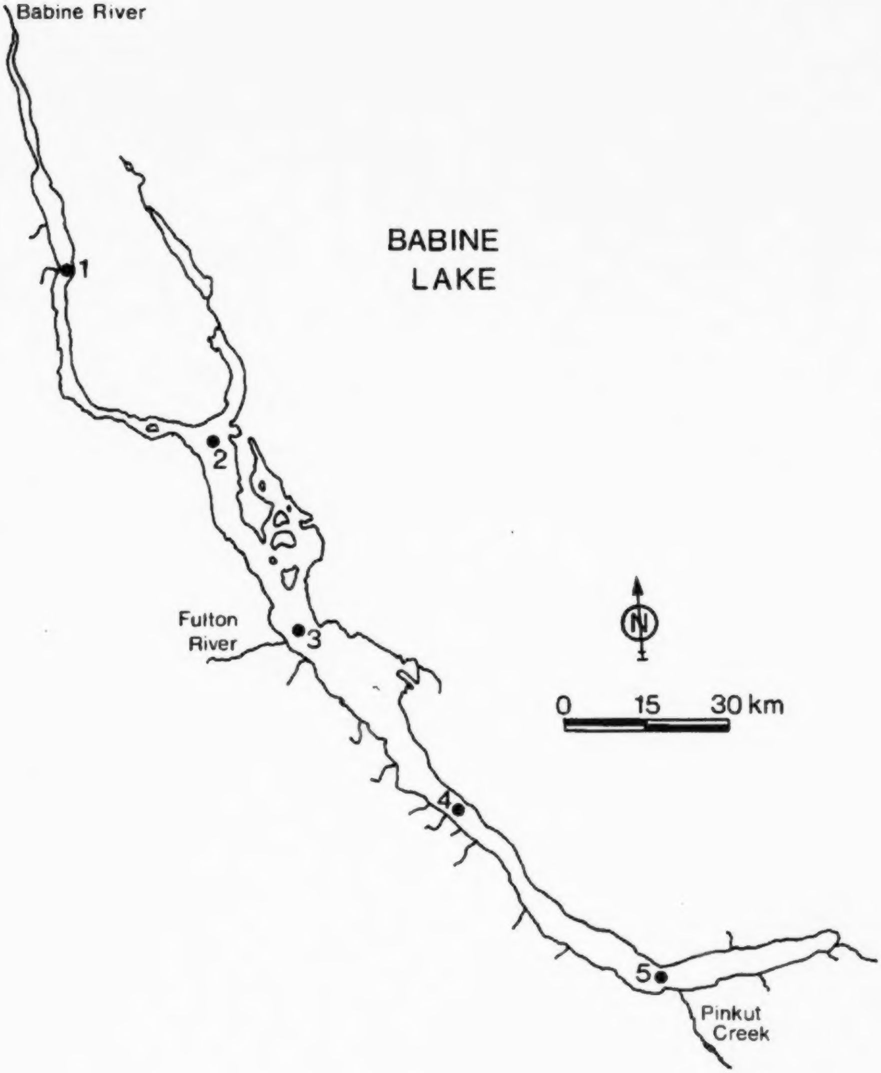
Babine River
BABINE LAKE
1
2
3
4
5
Fulton River
Pinkut Creek
N
0
15
30 km

Fig. 3. Map showing station locations at Babine Lake.

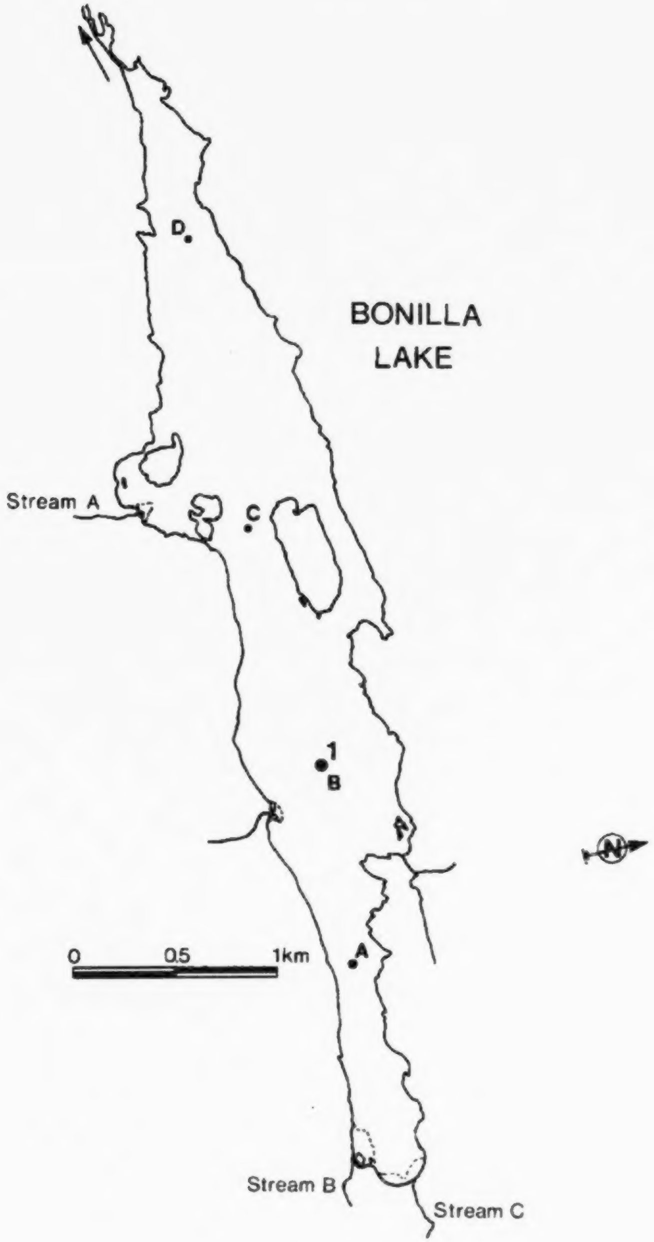
BONILLA
LAKE
D
C
1
B
A
Stream A
Stream B
Stream C
0
0.5
1km
N

Fig. 4. Map showing station locations at Bonilla Lake.

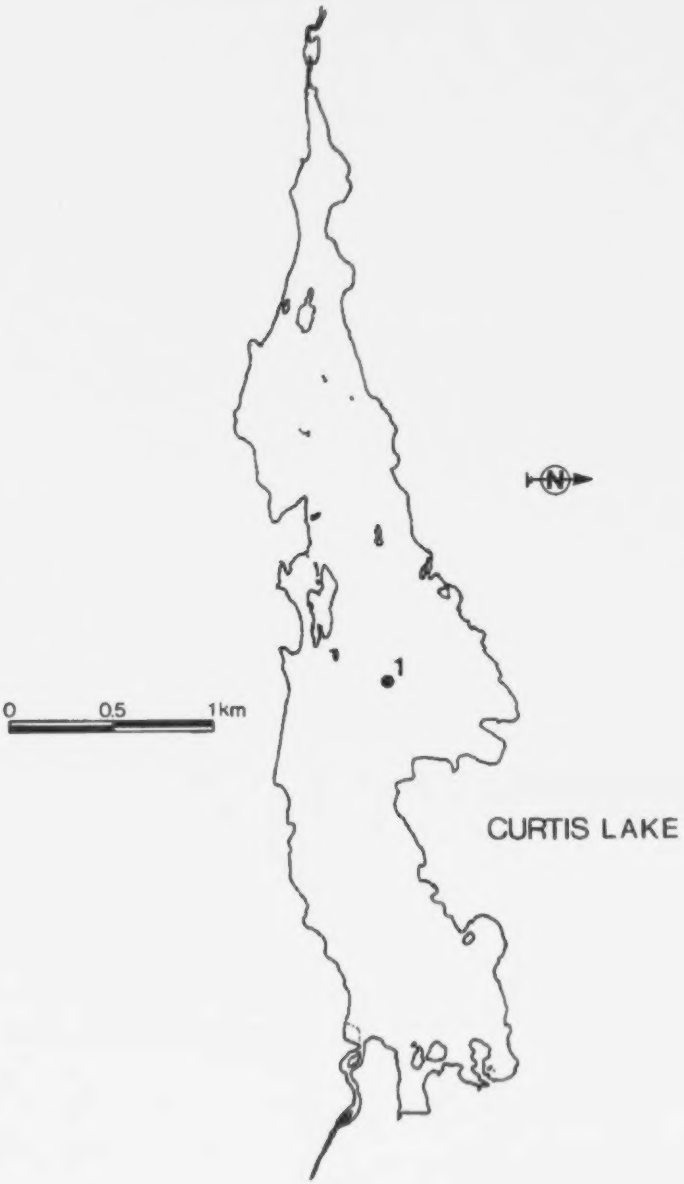
1
0
0.5
1km
N
CURTIS LAKE

Fig. 5. Map showing station location at Curtis Lake.

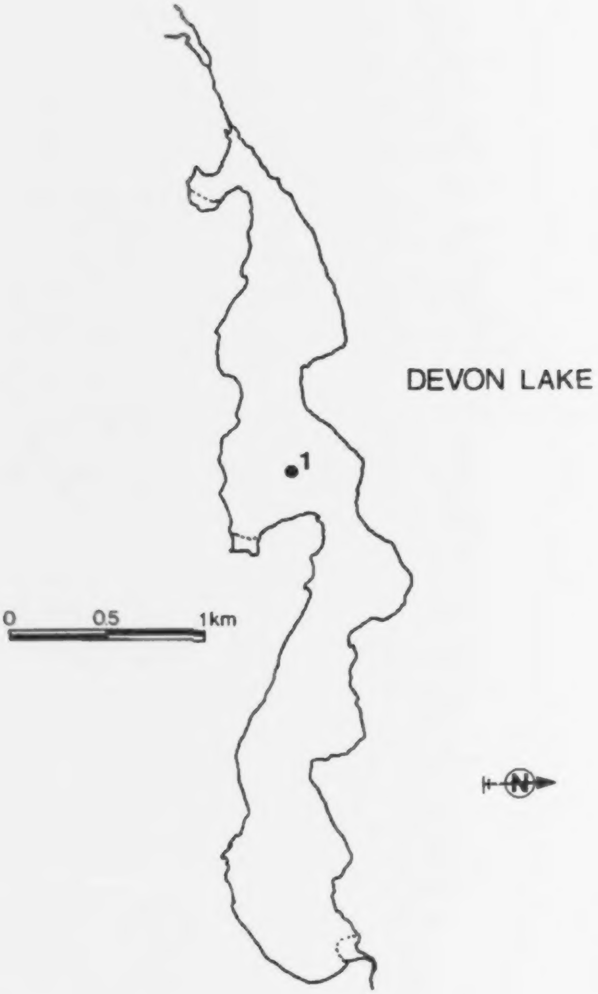
DEVON LAKE
1
0
0.5
1km
N

Fig. 6. Map showing station location at Devon Lake.

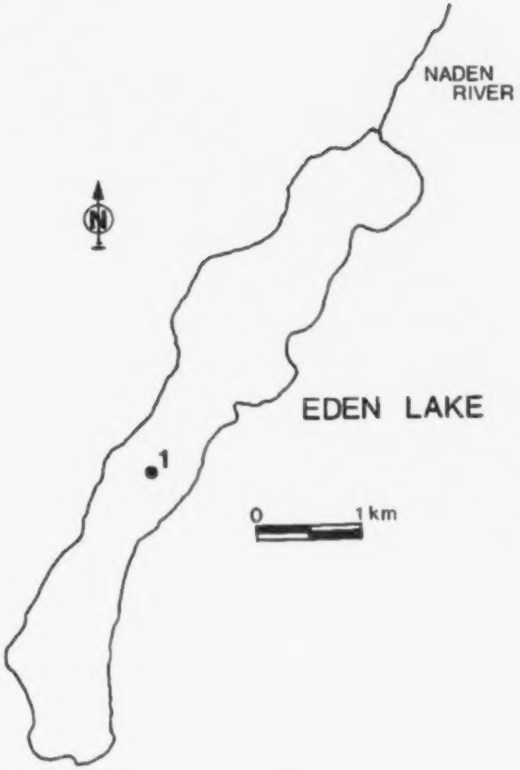
NADEN RIVER
EDEN LAKE
1
0
1 km
N

Fig. 7. Map showing station location at Eden Lake.

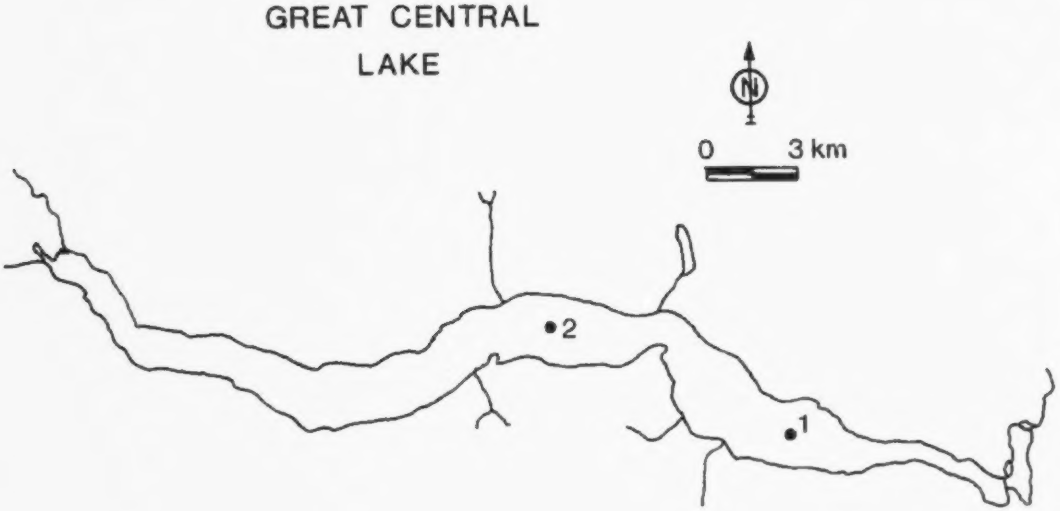
GREAT CENTRAL LAKE
N
0
3 km
2
1

Fig. 8. Map showing station locations at Great Central Lake.

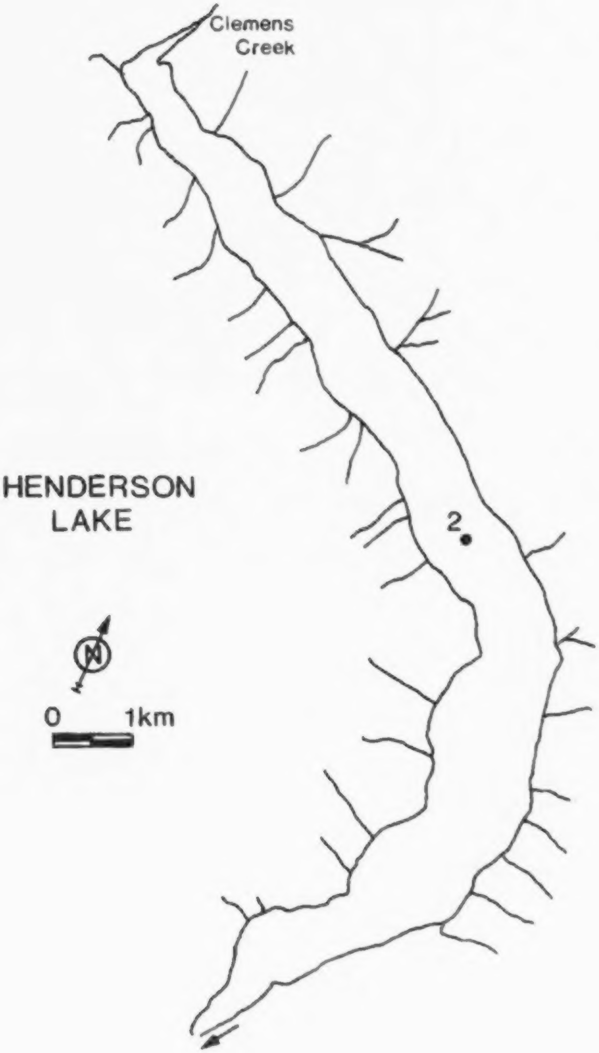
Clemens
Creek
HENDERSON
LAKE
2
N
0
1km

Fig. 9. Map showing station location at Henderson Lake.

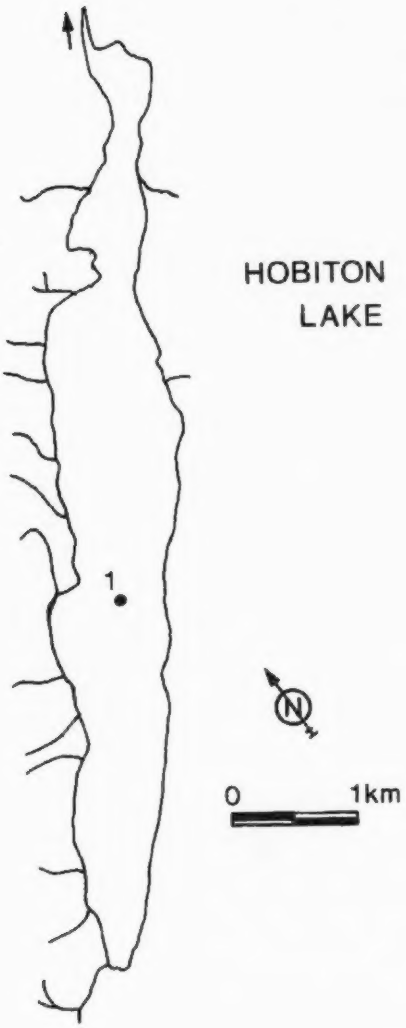
HOBITON
LAKE
1
N
0
1km

Fig. 10. Map showing station location at Hobiton Lake.

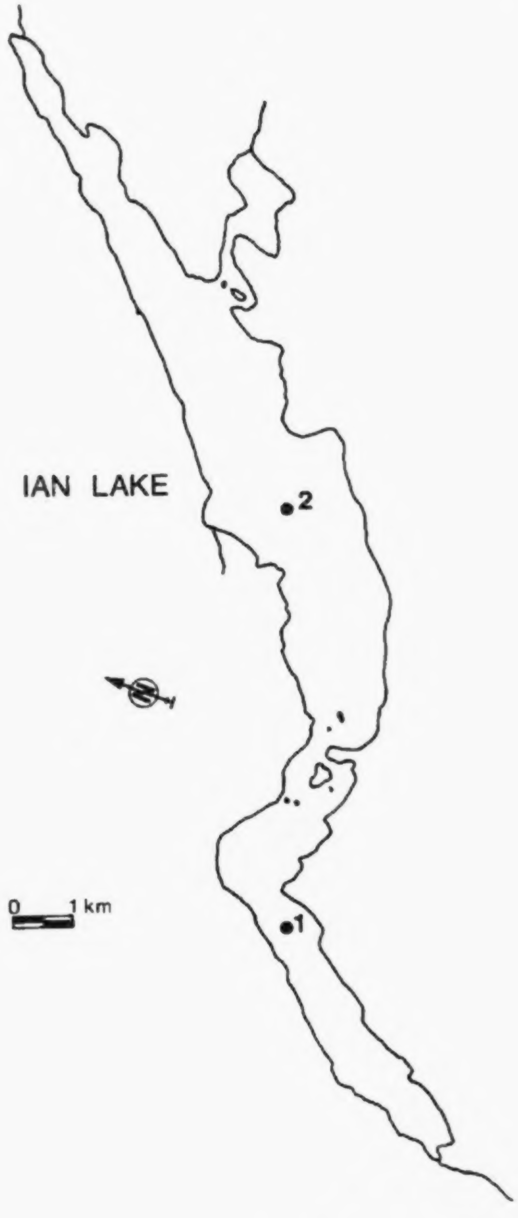
IAN LAKE
2
1
0
1 km

Fig. 11. Map showing station locations at Ian Lake.

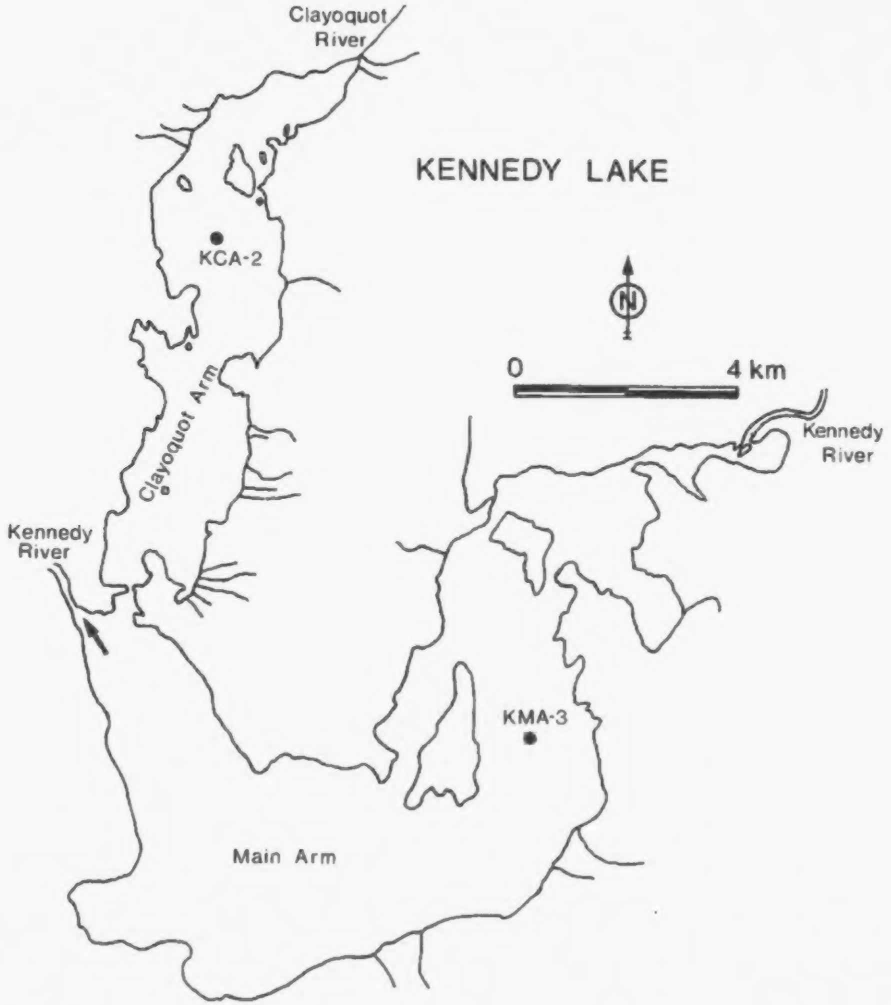
Clayoquot River
KENNEDY LAKE
KCA-2
N
0
4 km
Clayoquot Arm
Kennedy River
Kennedy River
KMA-3
Main Arm

Fig. 12. Map showing station locations at Kennedy Lake.

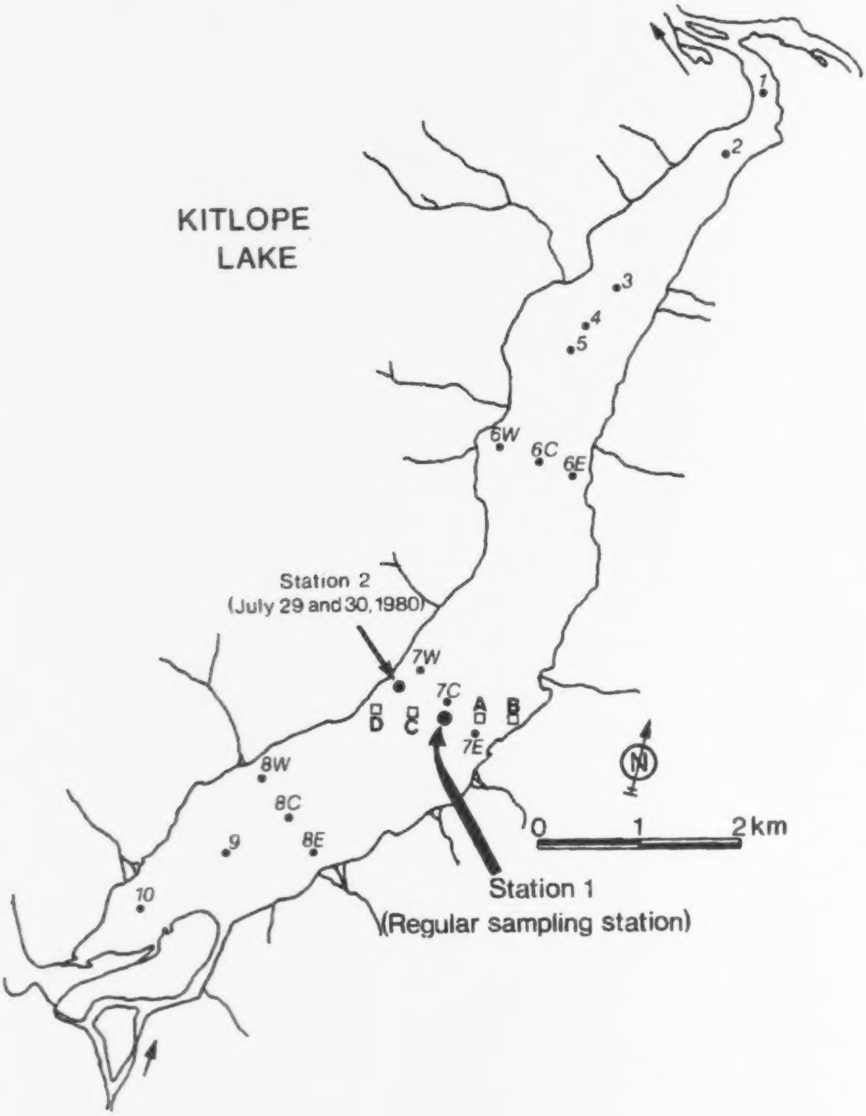
KITLOPE LAKE
1
2
3
4
5
6W
6C
6E
Station 2
(July 29 and 30, 1980)
7W
7C
7E
A
B
C
D
8W
8C
8E
9
10
N
0
1
2 km
Station 1
(Regular sampling station)

Fig. 13. Map showing station locations at Kitlope Lake.

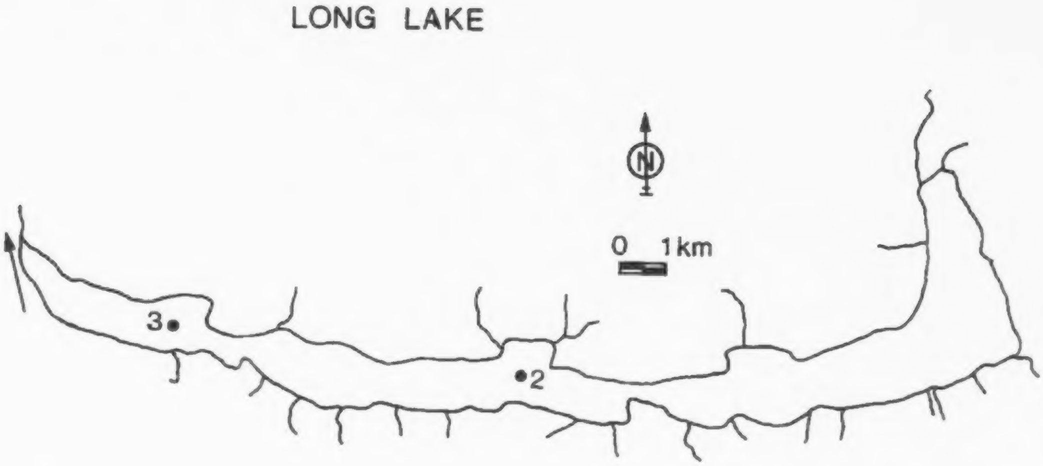
LONG LAKE
N
0 1km
3
2

Fig. 14. Map showing station locations at Long Lake.

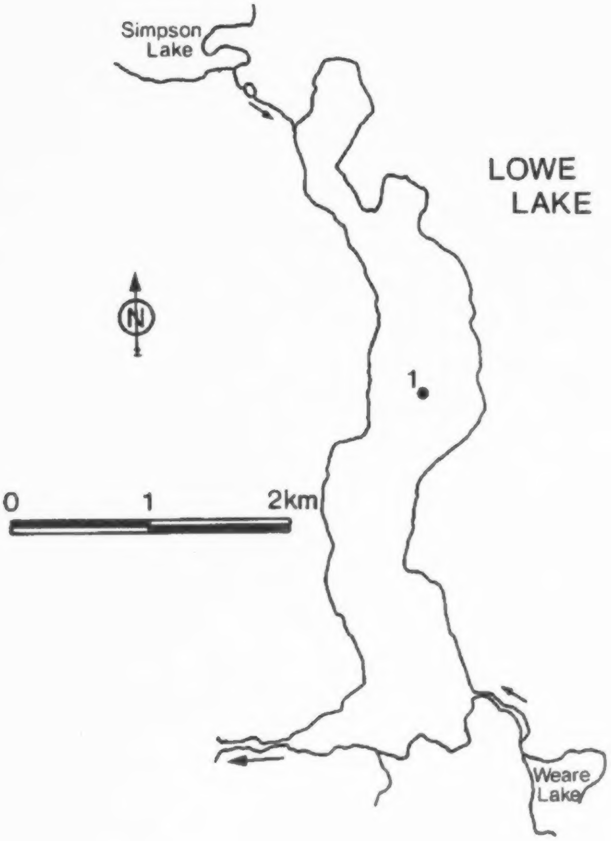
Simpson Lake
LOWE LAKE
N
1
0
1
2km
Weare Lake

Fig. 15. Map showing station location at Lowe Lake.

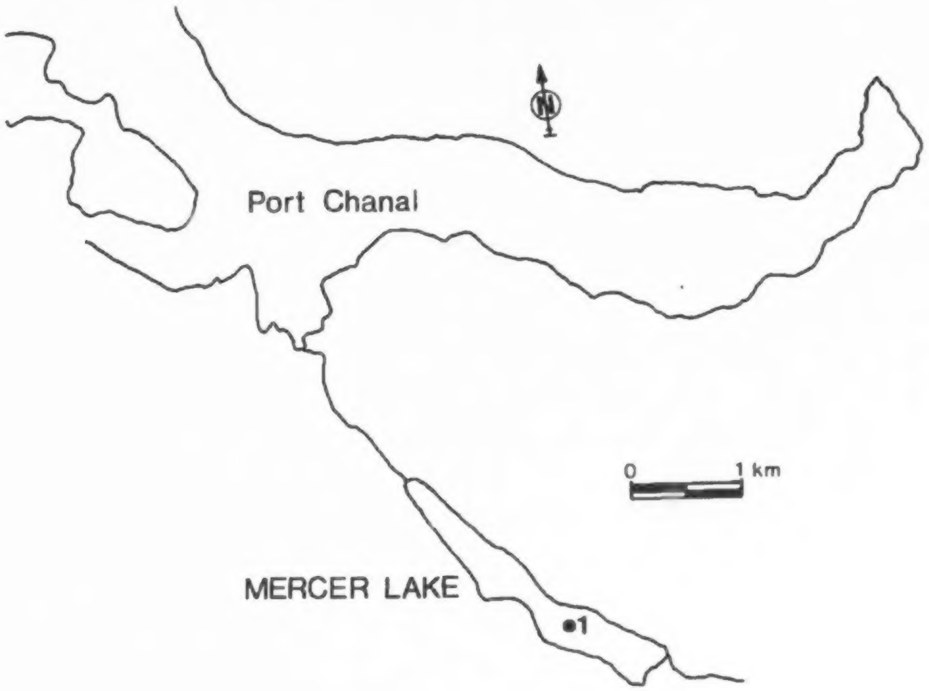
Port Chanal
N
0
1 km
MERCER LAKE
1

Fig. 16. Map showing station location at Mercer Lake.

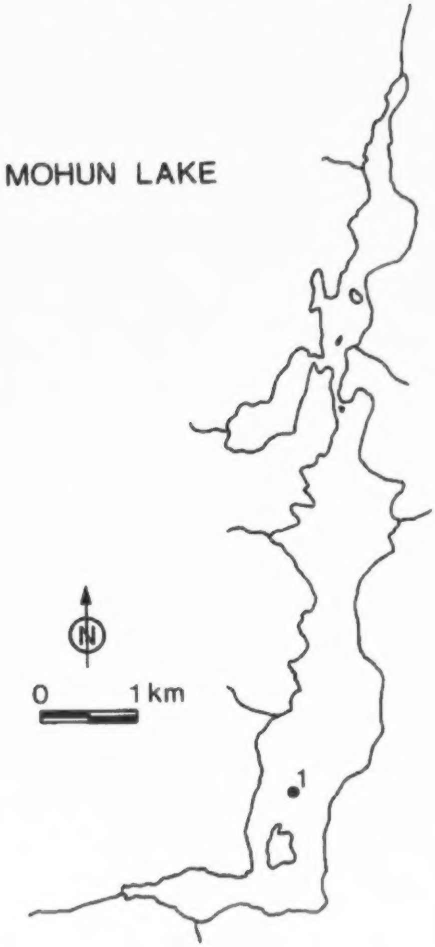
MOHUN LAKE
N
0
1 km
1

Fig. 17. Map showing station location at Mohun Lake.

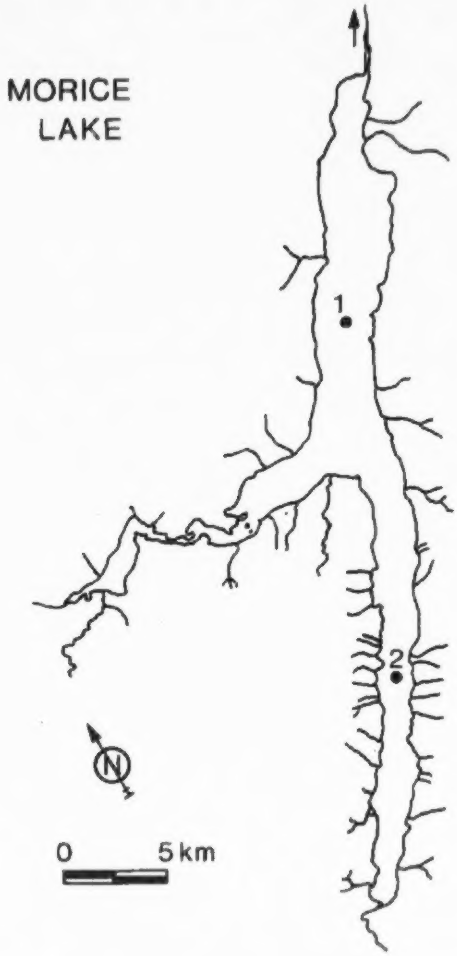
MORICE
LAKE
1
2
N
0
5km

Fig. 18. Map showing station locations at Morice Lake.

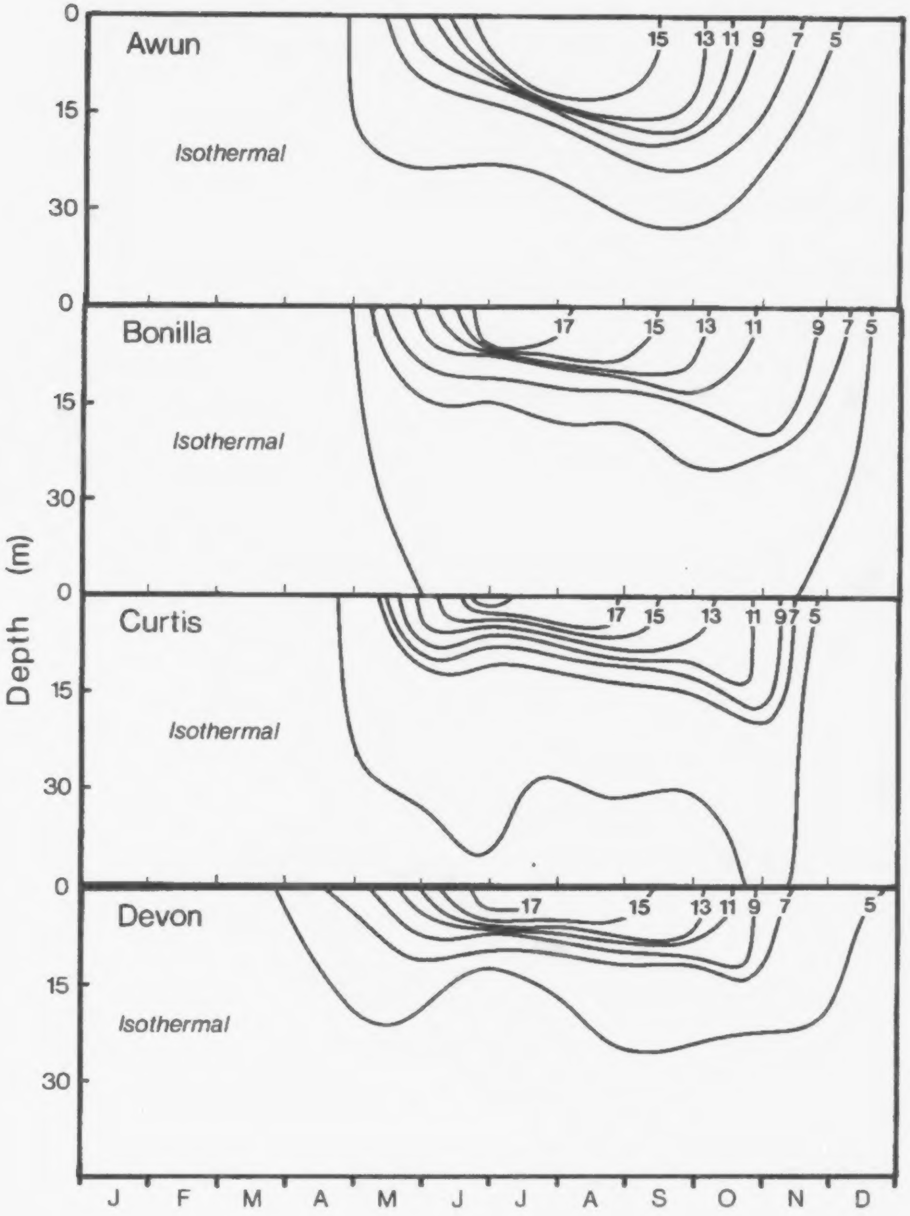

Fig. 19. Annual temperature isopleths of Awun, Bonilla, Curtis and Devon lakes.

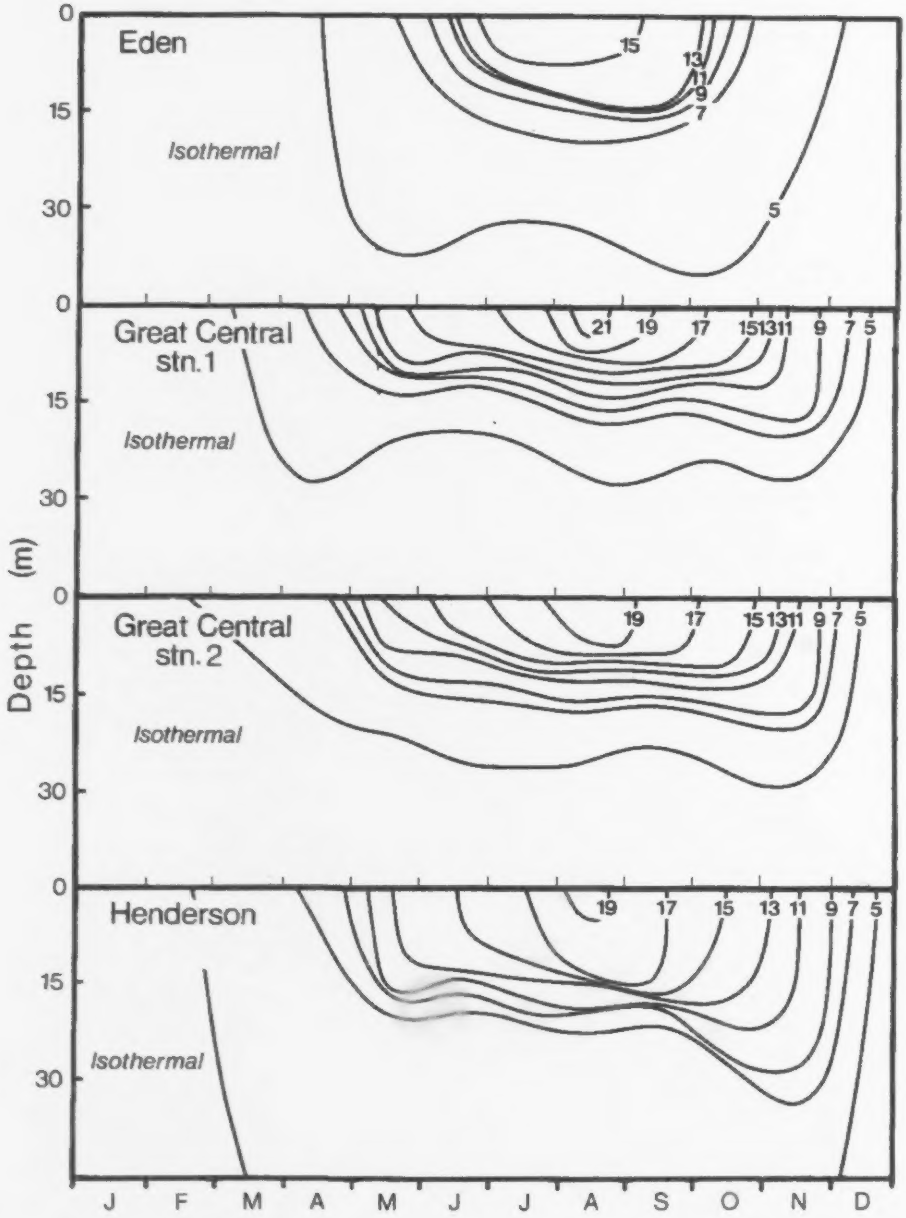

Fig. 20. Annual temperature isopleths of Eden, Great Central (Stations 1 and 2) and Henderson lakes.

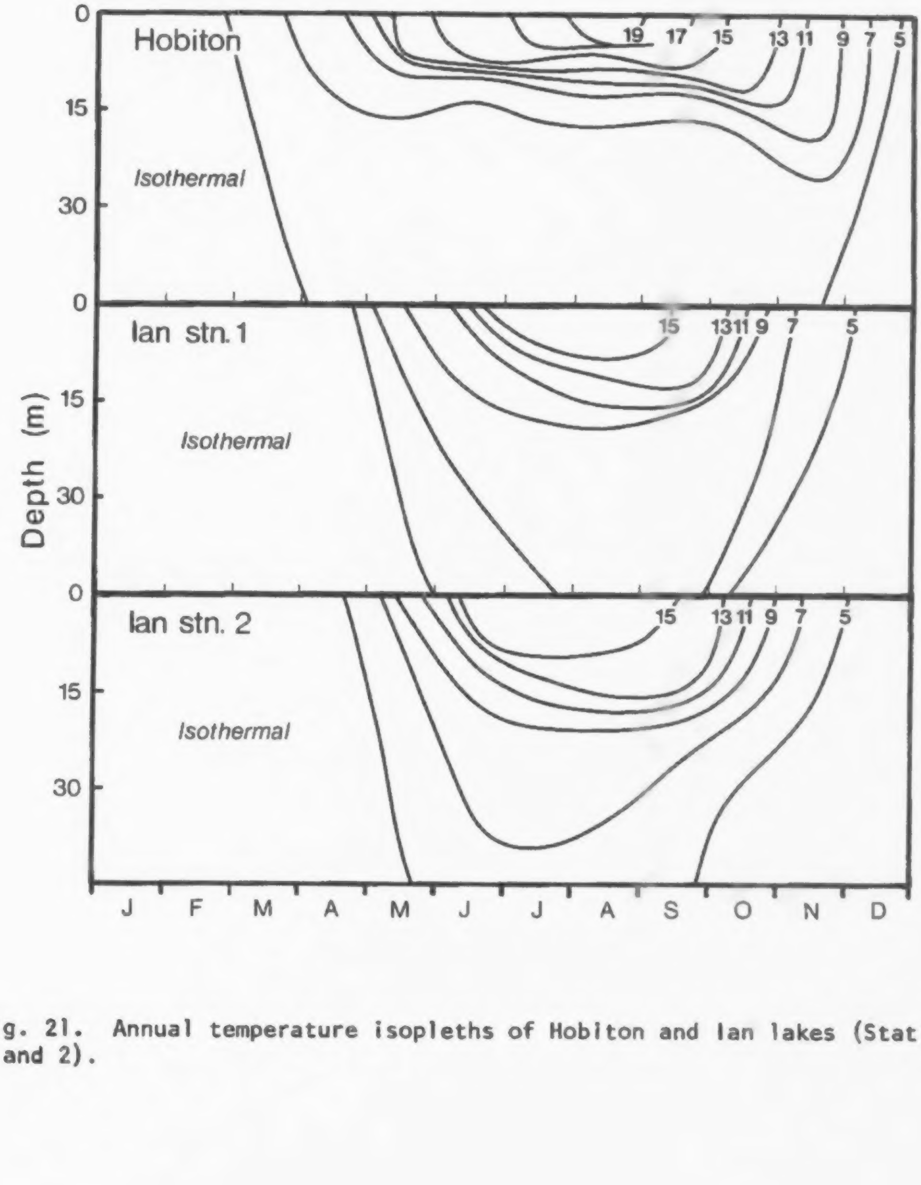

Fig. 21. Annual temperature isopleths of Hobiton and Ian lakes (Stations 1 and 2).

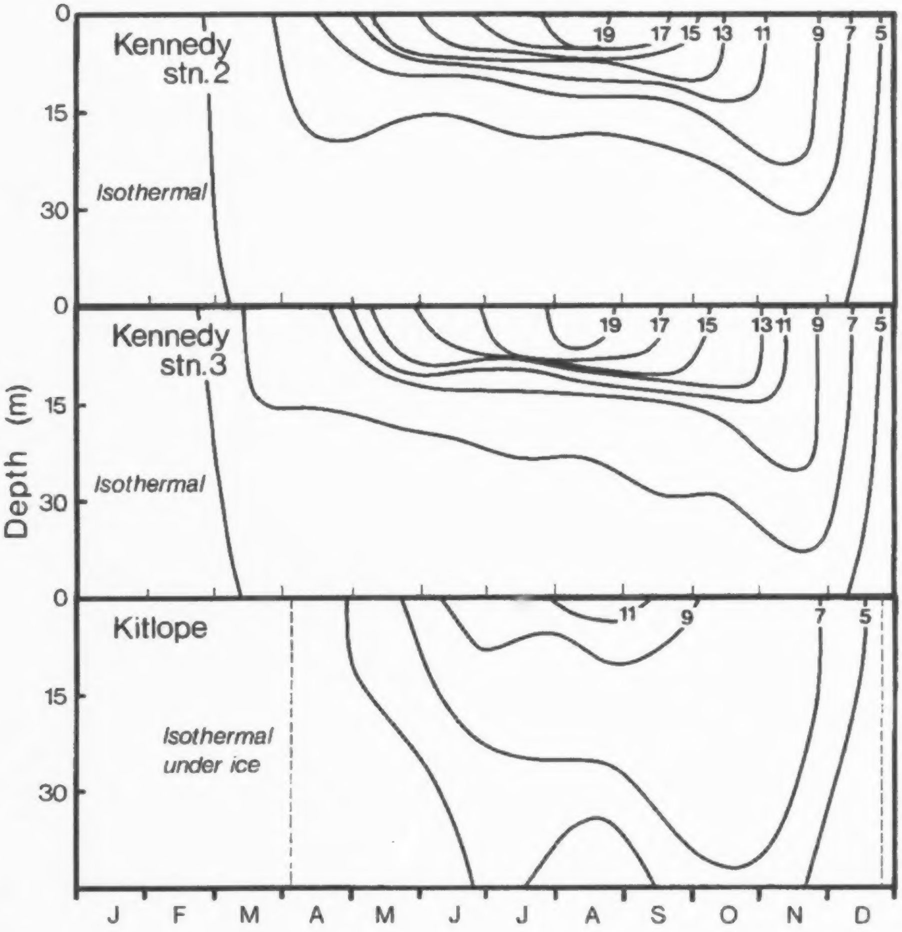

Fig. 22. Annual temperature isopleths of Kennedy (Stations 2 and 3) and Kitlope lakes.

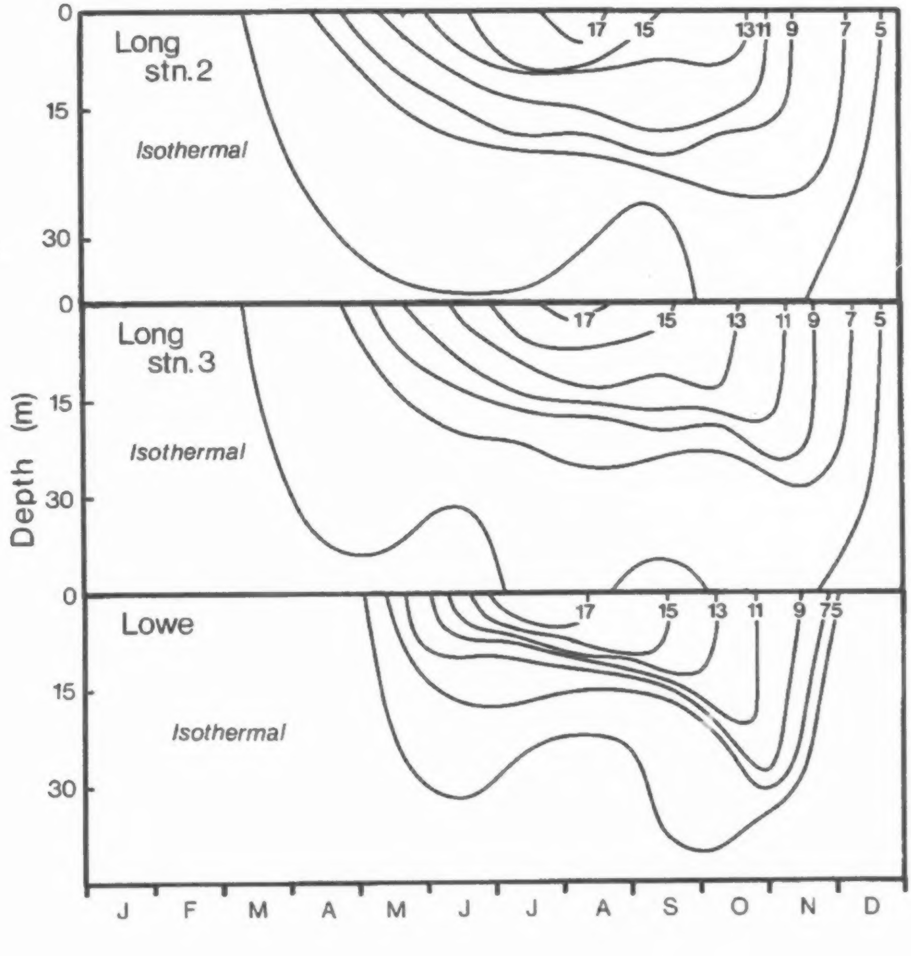

Fig. 23. Annual temperature isopleths of Long (Stations 2 and 3) and Lowe lakes.

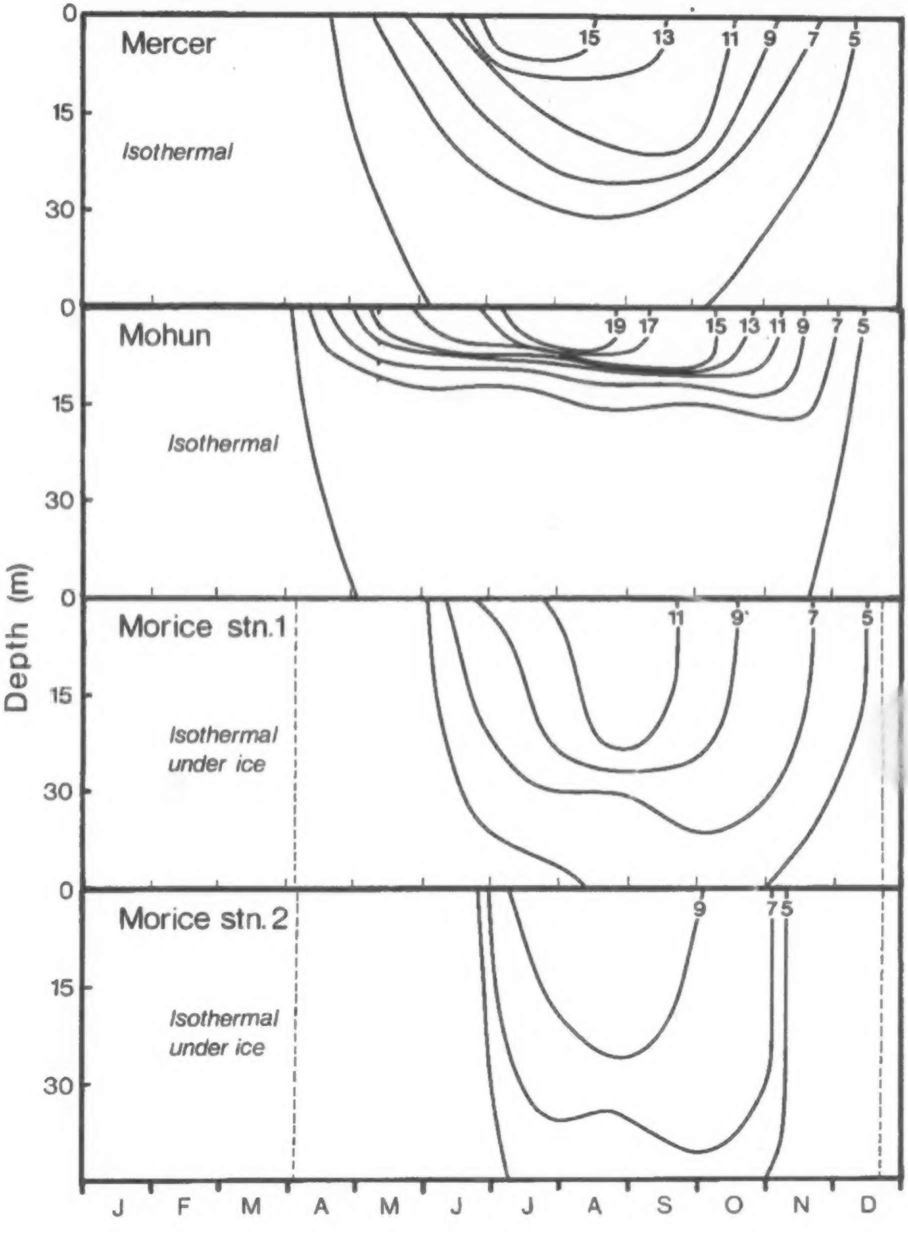

Fig. 24. Annual temperature isopleths of Mercer, Mohun and Morice lakes (Stations 1 and 2).